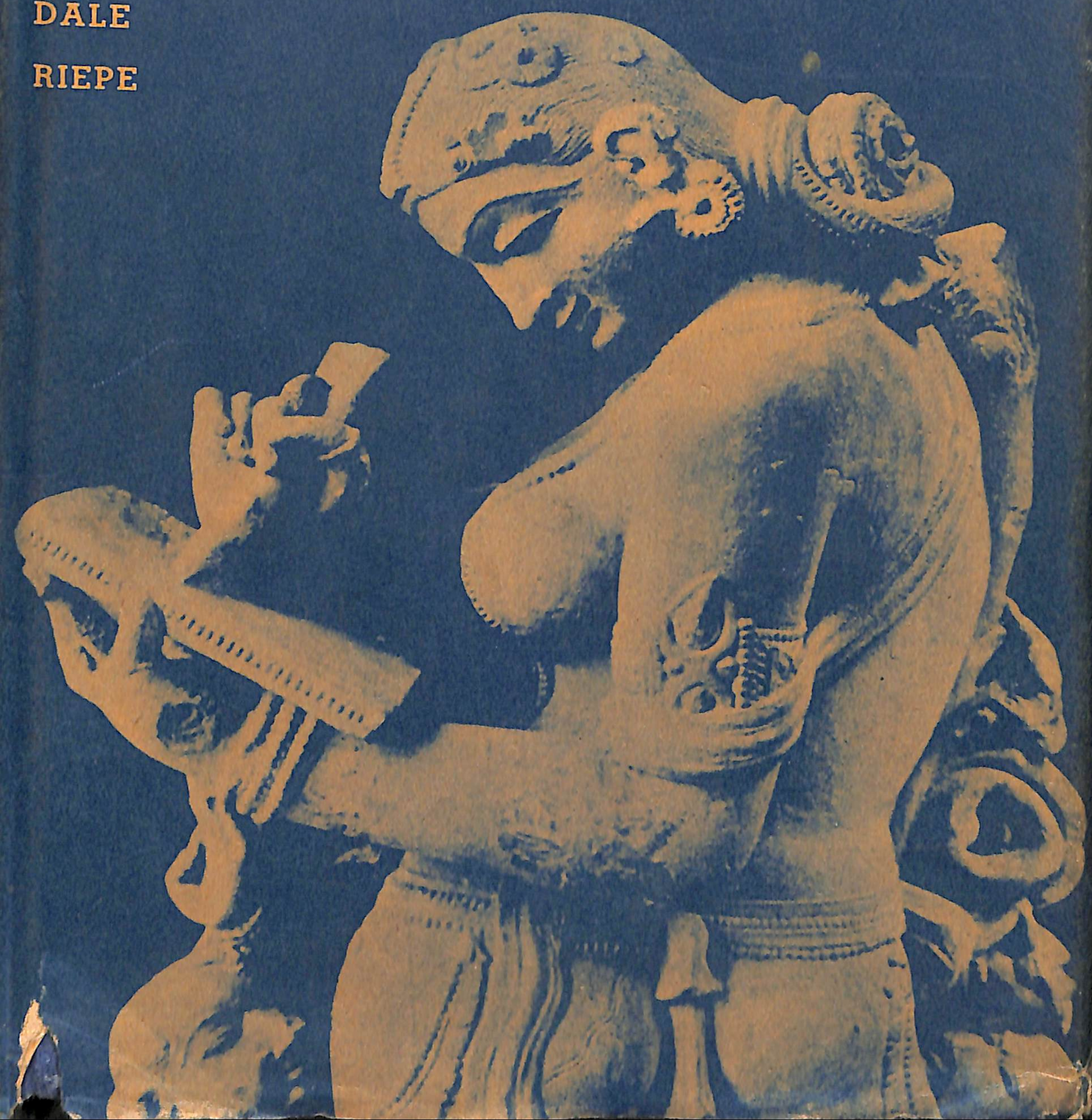
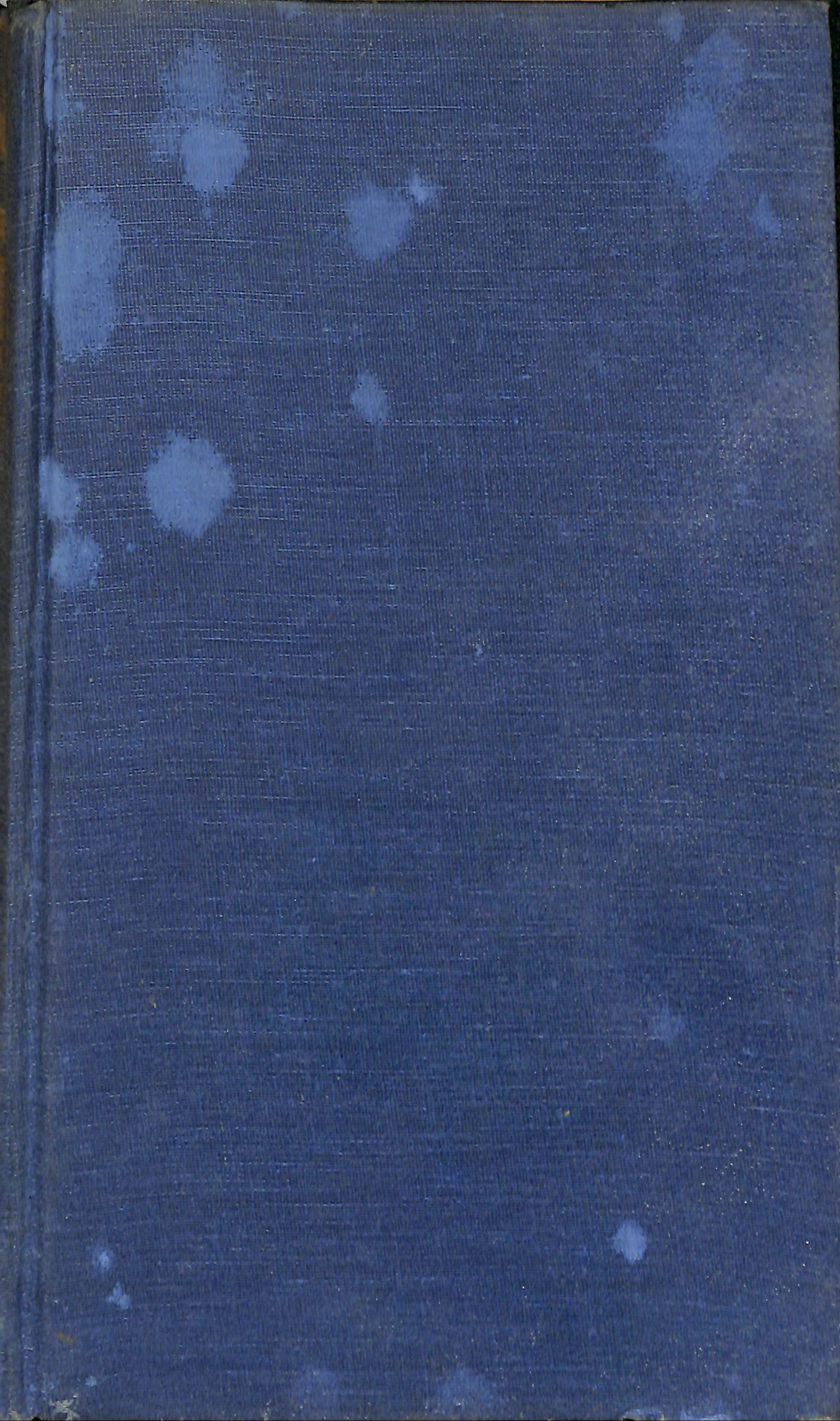
THE NATURALISTIC TRADITION IN INDIAN THOUGHT

BY

DALE

RIEPE







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To Roland and Martha Riepe
and Edward and Dorothy Williams

ἀνδρὶ σοφῷ πᾶσα γῆ βατή;
ψυχῆς γὰρ ἀγαθῆς ὁ ξύμπας κόσμος

Every land is open to a wise man;
for the native land of the noble soul
is the entire universe.
–Democritus

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Dale Riepe

CONTENTS

THE NATURALISTIC TRADITION IN INDIAN THOUGHT



A Woman Writing a Love Letter (from Bhubanesvar).
Courtesy of the National Museum, New Delhi

1. INTRODUCTION

The greatest romance cannot equal the story of man's conquest of nature, a part of which is his conquest of himself. Magnificent histories of science and technology recently have told the story of man's development of techniques for the understanding, prediction, and control of nature in the Near East, the Middle East, Western Europe, and, most recently, in China. However, a comprehensive account of India's science and technology has yet to be written, including a thorough examination of the world's debt to India in mathematics, astronomy, pharmacology; its debt going back to the third millennium B. C. to the pottery wheel, textiles (cotton), the Indus script, and two-wheeled carts; its debt going back to 1000 B. C. to iron-making techniques and somewhat later to crucible steel. Part of India's attempt to understand nature can be told in the history of Indian naturalistic and protoscientific thought. We have tried here to sketch the main outlines of Indian naturalism as it appears in both systematic and unsystematic speculation before its decline in the Indian Middle Ages, which began about the time of Muhammad.

Modest interest has been shown in publications on India that point out the naturalistic and protoscientific elements during the golden age of Indian philosophy (*ca.* 600 B. C. -A. D. 500). This trend, although never strong, may be said to have begun in the nineteenth century with T. Ḥ. Colebrooke's earliest writings on Hindu philosophy, read by Hegel in 1823, a year before its publication, and thereafter rapidly disseminated throughout

Europe from London to St. Petersburg. A much more outspoken attempt to reveal naturalistic trends in early Indian thought was published by C. Schoebel as "Naturalisme du Rig-Véda et son influence sur la société indienne" in 1852. This was followed by the *Works* of H. H. Wilson in 1862, and M. V. Vassilief's *Le Bouddhisme ses dogmes son histoire et sa littérature*, translated from the Russian in 1865.

Just before the turn of the last century, Richard Garbe's *Philosophy of Ancient India* appeared in 1897. Other significant works to follow were A. F. R. Hoernle's *Studies in the Medicine of Ancient India* in 1907, Luigi Suali's *Introduzione allo studio della filosofia indiana* in 1913, Brajendranath Seal's *The Positive Science of the Ancient Hindus* in 1915, and Alfred Hillebrandt's "Zur Kenntnis der indischen Materialisten" in 1916.

After the first World War, in 1920, Richard Fick published *The Social Organisation in North-East India in Buddha's Time*, which began auspiciously:

> The time is past when people used to think that so far as ancient India was concerned, it was enough to consider only Brahmanical literature. The view that for ancient Indian culture and ancient Indian life, we require only to consider Brahmanical sources, is necessarily one-sided, because . . . their authors immersed in the priestly views, the world which surrounded them, material as well as spiritual, existed only so far as it related to the sacrifices with their litany . . . No wonder that this world which the Brāhmaṇas interpreted in their own way appears so foreign and so strange to us.

Following this, Sir Arthur Berriedale Keith published his *Buddhist Philosophy in India and Ceylon* in 1923, and Giuseppe Tucci his "Linee di una storia del materialismo indiano" in 1926. Four years later Betty Heimann's *Studien zur Eigenart indischen Denckens* appeared. In 1938, S. Sāntinātha published *The Critical Examination of the Philosophy of Religion* and Jadunath Sinha his *Indian Realism*.

After World War II a number of works appeared, among them those of M. N. Roy, editor of several humanistic journals in Calcutta, and of Erich Frauwallner and Walter Ruben. Ruben had already written many articles and books on India from a naturalistic point of view, culminating in his *Geschichte der indischen*

Philosophie (1954) and *Beginn der Philosophie in Indien,* Vol. I (1956). Debiprasad Chattopadhyaya's *Lokāyata, A Study in Ancient Indian Materialism*(New Delhi: People's Publishing House, 1959), which has just reached me, promises to be an impressive addition to the literature just mentioned. Despite these efforts and scattered monographs on Indian medicine, mathematics, and chemistry, such as Benoy Dumar Sarkar's *Hindu Achievements in Exact Science* (1918), not a great deal had been done to give a unified account of Indian naturalism, particularly in English.

Many Westerners have carried on a tradition, partially stimulated by sympathy with the Indian independence movement from the time of Annie Besant (1847-1933), of praising Indian thought for the very beliefs that were rapidly finding disfavor among intellectuals of a naturalistic and scientific bent in the West. This has led to unfortunate results, not the least of which was to make Indian thought suspect of considerably more mysticism and irrationalism than it actually contained, leaving the field of Indian studies outside of philology to the philosophical idealists.

A survey of the material available in European languages alone revealed the somewhat startling fact that Indian philosophy contained a considerable amount of philosophical naturalism. The outspoken naturalism of the Cārvākas had, of course, been pointed out by many Indian philosophical idealists, usually as a lamentable accident on the turbulent ocean of Indian thought. But the systematic examination of the various early Indian systems still needed to be done. A thorough study of Indian philosophy in its connection with Indian medicine, alchemy, astronomy, mathematics, and technology must still be made. If this book is of any assistance or encouragement in that direction, we shall be gratified.

Our approach is simple. We shall first define what we mean by naturalism (roughly synonymous with protoscience), contrast it with what we mean by idealism, and then attempt to explain to what extent naturalistic thought or trends are to be found in the golden years of Indian philosophical thought. This period extended from 500 B.C. or slightly earlier to A.D. 500 or slightly later. It includes the inception of nearly every great school of Indian thought.

In this early period it is difficult to separate what we call

"naturalistic" from the "protoscientific." We hold that the naturalistic outlook is significantly also the scientific outlook; therefore, wherever naturalistic ideas have germinated in Indian philosophy, there protoscientific ideas are present. That these ideas did not always come to fruition at the same speed as in Italy and the northern part of Western Europe requires no apology. A satisfactory account giving the historical reasons for this has probably not yet been written.

Our major concern is to make explicit whatever naturalism we have found in the materials available to us, for the most part in European languages. We think of this as an initial study for someone proposing a more complete account that will include further details of specific technological developments. We hope also that this book may serve as an introduction to the vast literature of Indian thought for those who have previously resisted looking into it.

Definition of Naturalism

Naturalism, the key term in our reconstruction of the early philosophy of India, is thought of here in terms of beliefs held and the temper of mind that the holder of the beliefs has. But one cannot have an attitude without its having consequences in belief.

The most important doctrines of naturalism by our definition are the following:

1. The naturalist accepts sense experience as the most important avenue of knowledge.
2. The naturalist believes that knowledge is not esoteric, innate, or intuitive (mystical).
3. The naturalist believes that the external world, of which man is an integral part, is objective and hence not "his idea" but an existent apart from his, your, or anyone's consciousness.
4. The naturalist believes that the world manifests order and regularity and that, contrary to some opinion, this does not exclude human responsibility. This order cannot be changed merely by thought, magic, sacrifice, or prayer but requires actual manipulation of the external world in some physical way.
5. The naturalist rejects supernatural teleology. The direction of the world is caused by the world itself.

6. The naturalist is humanistic. Man is not simply a mirror of deity or the absolute but a biological existent whose goal it is to do what is proper to man. What is proper to man is discovered in a naturalistic context by the moral philosopher.[1]

Idealism and Abstractionism

Perhaps we can get a clearer picture of naturalism if we contrast it with idealism and abstractionism. *Idealism* is the viewpoint that emphasizes the primacy of mind, soul, or spirit in the universe, while *abstractionism* is a position that consists in the hypostatizing of concepts, ideals, and principles, mistaking these for realities of an objective sense.[2] Both idealism and abstractionism have failed, so far as the naturalist is concerned, to distinguish between those words which are about words and those which are about things.[3]

The marks of idealism are as follows:

1. A belief that there are more valuable avenues of knowledge than "mere" sense experience;[4]

2. A belief that the most important knowledge is that of understanding the subjective self and the mental life itself, not the external world or external nature;

3. A belief that what we really know about the external world is subjective;

4. A belief that the order of the external world is either mindistic or impressed upon it by man;

5. A belief that there is some kind of purpose in the world which is neither intrinsic to nature (immanent) nor impressed upon it by man;

6. A belief that man has transcendent goals involving a spirit beyond man.

1. An incisive idealistic view of naturalism and its weaknesses is that of Bernard Phillips in his essay "Radhakrishnan's Critique of Naturalism," *The Philosophy of Sarvepalli Radhakrishnan*, ed. Paul Arthur Schilpp (New York: Tudor Publishing Co., 1952), pp. 128 f.

2. A term suggested by the British philosopher John Lewis. This view may well include several types of positivism, empiricism, and analytic philosophy.

3. A paraphrase of Isaiah Berlin in *Historical Inevitability* (New York: Oxford University Press, 1954), p. 4.

4. Whether this is true of the empirical idealisms of the twentieth century is problematical.

The views that are predominantly idealistic in the Indian philosophical tradition include those of the perhaps mythical Yājñavalkya,[5] Mādhyamika Buddhism,[6] Yoga, Purva Mīmāmsā, theistic Sāmkhya, syncretic Vaiśeṣika, and Vedānta, to mention only the most important ones to appear during the period we are discussing.

The scientific viewpoint leans heavily upon the naturalistic tradition, and without such a tradition it does not appear.[7] We do not believe, however, in the fanatical distinction between *bad* mental and dualistic philosophy and *good* naturalistic and monistic philosophy. The crisscross of beliefs, the untenable presuppositions, the illogical conclusions, the lack of information, the unsifted prejudices, the myopic generalizations are to be found at both ends and throughout the philosophical spectrum, beginning with solipsism on one end and mechanical materialism at the other. We are caught between too much tolerance concerning overlapping and intolerance in drawing sharp distinctions. A perfect balance is not yet given to histories of philosophical opinions. The reader is not warned of this on every page only because the qualification might become tedious.

We shall trace tendencies which in the context of Indian thought between 500 B.C. and A.D. 500 appear to be naturalistic. Sometimes this naturalism may appear impure, diluted, and annealed with dualism and other viewpoints not strictly naturalistic from our point of view today. What is important to us is to show the reader actual and possible traces of naturalism and protoscience that are not so minute as to be invisible. In some systems of Indian thought one sometimes has the feeling that there is nearly a balance between naturalistic and nonnaturalistic attitudes and beliefs. When this has occurred, we have tried to indicate all possible trails that might be interpreted as naturalistic.

5. The most universally recognized diacritical marks for each Indian term will be used the first time it appears in the text. Thereafter, Indian terms will appear without marks except in the Glossary and Bibliography.

6. Historically, the second major type of Buddhism to appear. See T. R. V. Murti, *The Central Philosophy of Buddhism: A Study of the Mādhyamika System* (London: George Allen and Unwin, 1955), p. 76.

7. See the view of the development of science held by R. J. Forbes "Power," *A History of Technology,* ed. Charles Singer, E. J. Holmyard, and A. R. Hall (New York: Oxford University Press, 1957), II, 603 f.

China, Greece, and India

At the beginning of a study of this kind, it is sometimes helpful to contrast and compare events in one culture with those in another. The fragmentary systems of the Ionians and Democritus, and those of the Epicureans, the Stoics, and the system of Aristotle in Greece are perhaps helpful in providing guidance. Such also are the philosophy of Wang Chhung, Tsou Yen, the Taoism of Nature, and the Naturalist-Confucian Synthetics in China. These various philosophies existed in Greece and China at about the same time as those we are treating flourished in India. What they all have in common is, first, that they rejected or de-emphasized the supernatural aspects of the universe and, second, that they were friendly toward sensationalism (early empiricism) rather than toward such a view as that held by Plato concerning the "higher knowledge" without admixture of sensational (impure) elements. These philosophical views of China and Greece show greater or lesser degrees of naturalism, a view which we are prepared to defend at length although we believe it unprofitable to do so here.[8]

We may briefly point out that the early Indian schools, if placed side by side with their closest Chinese and Greek counterparts, would exhibit something like the following order.

Naturalist Scale

Early India	*Early Greece*	*Early China*
	(Highest)	
Carvaka	Democritus	None
	(Moderately High)	
Uddalaka	Aristotle	Wang Chhung
	(Medium)	
Vaiseshika	Epicureans	Tsou Yen
	(Moderately Low)	
Samkhya	Stoics	Taoists of Nature
	(Low)	
Hinayana Buddhists, Jains	Cynics	Naturalist-Confucian Synthetics

8. See the author's doctoral dissertation, Early Indian Philosophical Naturalism (Ann Arbor: University of Michigan, 1953), pp. 17 f.

Democritus is placed highest in degree of naturalism with Carvaka because he is a materialist, a sensationalist, and is concerned with understanding, and, to some extent, controlling the natural world without access to spiritualistic means. Aristotle ranks somewhat higher than the materialistic Epicureans because of his active concern in the systematic study of nature.[9] The Stoics, who were sensationalists, emphasized the importance of natural law and believed that divine intervention was unnecessary. The Stoics had some difficulty in determining whether the internal world of the self was part of the external world of nature, such that Marcus Aurelius was led to say that everything is opinion: opinion which is in our own power.

The Chinese philosopher, Wang Chhung, sometimes called a skeptic and, at other times, the Lucretius of China, lived just a little later than the Roman. What is outstanding about the naturalism of Wang Chhung is his acceptance of Yin Yang, of the five elements, the denial of consciousness to Heaven, and his belief that spontaneity is a basic element of nature. So far as he is concerned, the specious art of immortality "must fail as surely as ice cannot be prevented from melting."[10] He was opposed to anthropocentrism and held that Heaven and Earth could not be affected by prayers nor did they answer questions.

It is believed that Tsou Yen *(ca.* 350-270 B.C.) either originated the five-element theory or at least systematized it. As the Shih Chi has it: ". . . he examined deeply into the phenomena of the increase and decrease of the Yin and the Yang (Yin Yang hsiaeo hsi)"[11] and wrote essays totaling more than one hundred thousand words about their permutations and about the transmutations of the Five Powers (five elements: fire,

9. We were previously inclined to hold the view that the Epicureans showed a more consistent naturalism than Aristotle but are inclined to change our position after reading the compelling argument of George Thomson in his *Studies in Ancient Greek Society* (2 vols.; London: Lawrence and Wishart, 1954-55), II, 314.

10. Joseph Needham, *Science and Civilisation in China* (Cambridge, Eng.: Cambridge University Press, 1956), II, 369.

11. *The I Ching or Book of Changes,* trans. from the German trans. of Richard Wilhelm by Cary F. Baynes (Bollingen Series, No. 20 [New York: Pantheon Books,1951]), Fifth Appendix.

earth, wood, water, metal).[12] He arranged these powers until each found its proper place.

There were elements of naturalism in Taoism that gave it the right to claim itself as the earliest naturalistic school in China. Needham quotes Feng (Fung yu lan), China's most eminent living historian of philosophy, to the effect that Taoism was '"the only system of mysticism which the world has ever seen which was not profoundly anti-scientific.'"[13] This Taoism is not the Taoism of Human Society, but rather the Taoism of Nature which attacked Confucian scholastic knowledge, presumably starting in the fourth century B. C. The Taoism of Nature emphasized the unity and spontaneity of the natural order, the natural order being eternal and uncreated. Chuang Tzu (386-369 B. C.), who, according to Needham, was the most important of these early Taoists, suggested a principle of nonmechanical causation, that is, "a veritable organic philosophy."[14] Of significance also is the nonteleological view of the operations of nature, which appeared as early as the third century B. C. There are many other interesting naturalistic attributes given to this form of Taoism by Needham, but they are beyond the limits of this brief résumé of naturalism in China and Greece in the earliest period of philosophy.

The other naturalist school is the Naturalist-Confucian Synthesis of the Han (250-80 B. C.), which continued the Five Element Theory of Tsou Yen, the Yin Yang school, but did not accept generally the naturalistic outlook of Tsou Yen. The trouble with the Tsou outlook was, according to the "Old Text" Confucianists, that it was full of "strange and deceptive teachings."[15]

Before we turn, however, to a detailed examination of the Indian systems we have called naturalistic and protoscientific in some of their aspects, we shall briefly consider the problem of chronology in Indian philosophy.

Indian Chronology

The chronology of Indian philosophy is extremely vague, yet

12. Needham, *Science and Civilisation,* II, 332-33.
13. *Ibid.*, p. 33.
14. *Ibid.*, p. 51.
15. *Ibid.*, p. 246.

within broad limits it can be outlined. The dates attached to philosophical systems and events are considerably less precise than those to be found even in pre-Socratic philosophy in the West.

The earliest historical writing in India is genealogy written by court poets, frequently inaccurate and having the function of edifying rather than recording. An approach to historical writing is found in such works as the *Gaüḍavaha* of Vākpatiraja *(ca.* eighth century A. D.), which was written to celebrate the defeat of a Gauda prince, and also in the *Navasāhasāṅkacarita (ca.* A. D. 1005) of Padmagupta, concerning the courtship of a princess. Kalhaṇa, chronicler of kings of Kashmir, is the only historian considered worthy of the name until recent times. His *Rājatarāngini (ca.* eleventh century A. D.) stands as the first historical work in India written by an Indian.[16] The most useful material on Indian history during post-Vedic times is from such non-Indian travelers as Megasthenes in the third century B. C.; Fa Hian, in India in A. D. 399; Hiuen Tsang, in India from 629 to 645; I Tsing, in India from 671 to 695; and Alberuni, who wrote his *India* in 1030.[17]

Several reasons may be given for the feebleness of interest in chronology and history, one of them being pertinent to philosophy. First, no foreign attack on India excited national feeling as did the Persian attacks on Greece. This lack of national feeling is dependent, in part, on the vastness of India as compared with the compactness of Greece. Second, there was no strong movement of criticism of tradition which might have brought the historical mood into play except the criticism that vanished in philosophy. Last, there is no evidence that Indian scholars regarded dating as anything but trivial. This view may be attributed to the attitude exemplified generally in Indian philosophy that time is of secondary importance and that genetic analysis of philosophical ideas can have little relevance to the worth of those ideas. Hegel's comment on the lack of historical writing in India is interesting, if cavalier. He says that in India

16. Arthur Berriedale Keith, *A History of Sanskrit Literature* (Oxford: Geoffrey Cumberlege, 1948), pp. 144-47.

17. Arthur A. Macdonell, *A History of Sanskrit Literature* (New York: A. Appleton and Co., 1900), p. 13.

> . . . we find the department of History altogether neglected, or rather non-existent. For History requires Understanding—the power of looking at an object in an independent objective light, and comprehending it in its rational connection with other objects. Those peoples therefore are alone capable of History, and of prose generally, who have arrived at that period of development (and can make that their starting point,) at which individuals comprehend their own existence as independent, i. e. possess self-consciousness.[18]

The fortunate Chinese, says Hegel, reached this point!

Certain dates in the pre-Christian era have been often used as fairly reliable guides from which computations may be made, in spite of W. D. Whitney's statement that "all dates given in Indian literary history are pins set up to be bowled down again."[19] These key dates are considered to be the following:

500 B. C.	the end of Vedic literature
483	death of the Buddha[20]
326	Alexander's invasion of India
315	revolt of Candragupta against the Greeks
264	crowning of Aśoka
174	last of the Maurya kings
144	reign of Menander the Graeco-Bactrian[21]

On the basis of these dates and considerable computation, usually heavily dependent upon the projected length of reigns of various rulers in northern India, it is possible to give a rough approximation of the chronology of Indian philosophy.

Some of the dates given in the comparative table below may be one hundred years plus or minus, particularly those on the Indian side.

18. G. W. F. Hegel, "India," *Lectures on the Philosophy of History,* trans. I. Sibree (3rd ed.; London: George Bell and Sons, 1890), p. 169.

19. William Dwight Whitney, *Introduction to Sanskrit Grammar* (2nd ed.: Cambridge, Mass.: Harvard University Press, 1950), p. xix.

20. Edward J. Thomas *(The History of Buddhist Thought* [New York: Alfred A. Knopf, 1933], p. xvi) gives this date rather than Winternitz' date of 477 B. C. A Breakthrough on dating may occur at any time. See Sir Mortimer Wheeler, *Early India and Pakistan to Ashoka* (New York: Frederick A. Praeger, 1959), p. 173.

21. Moriz Winternitz, *A History of Indian Literature,* trans. S. Ketkar (2 vols.; Calcutta: Calcutta University Press, 1927), I, 27 f.

Comparative Chronology

Date	*Indian*	*Greco-Roman*
1200 B.C.	Earliest Vedas	
800	Middle Vedas	Earliest Homeric Poems
700	Earliest Upanishads Uddalaka	
600	Ajivikas	Hesiod, Anaximander
580	Jainism	Thales
563	Buddha born	Anaximenes
550	Carvaka	Anaxagoras
500		Empedocles, Leucippus, Protagoras
450	Samkhya	Democritus, Aristippus
300	Vaisesika	Aristotle, Epicurus, Zeno the Stoic
200	Kautalya	Carneades, Strato of Lampsacus, Philo of Byzantium
100	Mahabharata Ramayana	Lucretius, Hero of Alexandria
0	Caraka	Aenesidemus the Skeptic
100 A.D.	Kanada	Epictetus
200	Nagarjuna, Kapila, Iswara Krishna	Marcus Aurelius
300	Kalidasa	Sextus Empiricus
400	Dinnaga, Vasubandhu	Julian the Apostate
500	Asanga, Paramartha	Closing of the Athenian Schools
600	Uddyotakara, Bharadvaja, Dharmakiriti, Hiuen Tsang	Justinian

It should be noted that this table is rather a conservative estimate, making concessions to those who hold to the lateness of the individuals and schools involved.

2. NATURALISM OF THE VEDAS AND UPANISHADS

The Vedas

The culmination of Indian philosophy is frequently considered to be the Vedānta or Uttara-mīmāmsā[1] begun in the fourth century A.D. and still being elaborated today. The Vedanta, relying heavily on the Upanishads and Brahmasūtras, is a development out of *śṛuti,* the divine knowledge given to the Indians through the Vedas. It also relies to a lesser degree on the *smṛiti,* or human knowledge, of the Bhagavadgītā,[2] the Bhīshma-parva, and perhaps the entire epic literature. It is thus claimed that the Vedanta rests on an unbroken succession of divine literature beginning with the *Rigveda,* the major basis of the Upanishads which provided the material for the Brahmasutras.

The historical succession of the sacred literature is shown below. This literature, considered to be divine or suprahuman, is called *sruti* (literally "hearing" in Sanskrit) because it was not written down but transmitted orally for perhaps centuries before the use of writing in India. Even now it is still transmitted this way in some regions.[3]

1. Vedanta means literally "the end or culmination of the Vedas." See Swami Nikhilananda (ed. and trans.), *The Upanishads,* (2 vols.; New York: Harper and Bros., 1949-51), I, 11.

2. A section of the *Mahabharata (ca.* 200 B.C.-A.D. 200), the greatest epic of Indian literature.

3. E.g., in Banaras, the Jerusalem of India.

Sacred literature, at first oral, developed into three main strata: (1) the Vedas (sacred hymns); (2) the Brāhmaṇas (ritual treatises);[4] and (3) the Upanishads (theosophical works). The Āraṇyakas (forest treatises) are partly theosophical and form the transition from the Brahmanas to the Upanishads.[5]

The Saṃhitā were texts attempting to reproduce the actual words used by the ancient seers who recited the Vedas. The Sūtras were concise treatises in which the ritual of the religion of the Brahmanas was condensed for practical purposes, among these to help young male novices learn the ancient sacerdotal literature. Even court procedure was oral, unlike that of China, and "all holy Indian literature . . . was fashioned for easy memorization and ready reproduction. It employed for this purpose, in part, the epigrammatic formulae,"[6] for philosophical dispute, the teacher providing the necessary commentary. The emphasis from Vedic times on the oral tradition, debate, and forensics has persisted down to the present time, especially in the great centers of learning, such as Banaras, Patna, Calcutta, Madras, Trivandrum, and Bombay. This is in the greatest contrast with the brush-centered Chinese and Japanese tradition.

Succession of Sacred Literature

B.C.	
1200	Earliest Vedas (oral): recited in meter
700	Brahmanas (prose): based on oral Vedas
650	Aranyakas (prose): concluding portions of Brahmanas
626	Upanishads (prose): concluding portions of Aranyakas
600	Veda Samhita (verse): based on oral Vedas
500	Sutras (prose): based on Brahmanas with the interpolations of priestly tradition

4. These are quasi-sacred, although technically *smriti*.

5. See P. T. Raju, "The Development of Indian Thought," *Journal of the History of Ideas*, XIII (October, 1952), 529-30.

6. Max Weber, *The Religion of India: The Sociology of Hinduism and Buddhism*, trans. Hans H. Gerth and Don Martindale (Glencoe, Ill.: Free Press, 1958), p. 159.

Just as there are indications of idealistic Vedanta in the Vedas, the earliest Indian religious and quasi-philosophical literature, so there are notes of naturalism recognizable in it. The *Rigveda,* archetype of Sanskrit religious literature, contains hymns addressed to Hiraṇya-gharba Prajāpati, the Golden Embryo from which everything else grows; to Indra, the Sun God; and to the Maruts, Storm Gods who sweep all before them in the sky, making rain and hence crops possible. These are the earliest writings describing deity, its functions, and its possible nonexistence.

But in these hymns also are evidences showing the direction of more naturalistic trends that were to culminate in the Ajivikas, Carvakas, and the other *āstikas* (Jains and Buddhists). The conception of nature in the *Rigveda* is that of an aggregate of forces, but forces not set into activity by a common principle such as *prakriti* becomes for Sāṃkhya philosophers. The gods of the Vedic hymns are only slightly removed from natural phenomena which they represent so that "a simple nature worship is presented, the naive wonder and reverence of man in the presence of the mighty forces of the universe. . . ."[7]

Popular religion during the Vedic times included various forms of orgiasticism, exemplified by Indra's drunkenness and dance, the Marut sword dance, the soma sacrifice, meat orgiasticism, and the *lingam* (phallic) cult.[8] Under the rationalistic propensities of the chief brahmans, attempts were made to confine ecstasy and asceticism within the bounds of order, but, as we shall discover, Ajivikas, Jains, and Buddhists refused to be captured in that organized mold. Nevertheless, the *yati* (ascetic) was encouraged in vegetarianism (as against meat orgiasticism), abstinence from alcohol (as against the drinking of soma), control of sexuality (as against ritualistic copulation), and other controls of the flesh against the demoniacal emotions.[9]

The Vedic deities are just as anthropomorphically described as deities in the Homeric Age or in the Pentateuch. According

7. A. S. Geden, "Nature (Hindu)," *The Encyclopaedia of Religion and Ethics,* IX, 229.
8. Weber, *The Religion of India,* pp. 137-38.
9. *Ibid.,* p. 150.

to A. S. Geden in his discussion of the Hindu conception of nature:

> Perhaps in no other early religion is the "natural" element so clearly revealed, or the material origin so little obscured by passing into the divine . . . also the qualities and attributes of the various gods, being constructed, as it were, after one pattern, that of man, present little variety, and the same epithets may be and are applied to each and all.[10]

Yet it must be admitted that the powers of nature are not worshiped as *natura naturata* (nature having been created), but rather as *natura naturans* (nature creating).[11]

Petitions to the gods in the hymns are for the tangible goods of this world:

> . . . for abundant provisions, good pasture-grounds, robust and virile cows, splendid horses, rich harvests, gold, opulence, a large and reliable fortune, health, physical strength, beauty, a perpetually vigorous family stock, a long old-age, material security, renown and glory–these are types of requests which fill the famous Rig-Veda from the first page to the last, and not those which denote a supersensitive belief,–the spirituality of the soul, for example, or the pre-excellence of moral virtue.[12]

This is well shown in the following passages taken from the *Rigveda:*

> Will you then, O Maruts, grant unto us wealth, durable, rich in men, defying all onslaughts ?–May he who is rich in prayers (the host of the Maruts) come early and soon![13]

Compare this with the following:

> Augment, Oh Agni, twofold the strength of the man who worships thee

10. Geden, "Nature (Hindu)," pp. 229-30.

11. A. K. Coomaraswamy, *Hinduism and Buddhism* (New York: Philosophical Library, n.d.), p. 3.

12. C. Schoebel, "Le naturalisme du Rig-Véda et son influence sur la société indienne," *La Revue Orientale* (Paris), 1852, p. 11 n.

13. *Rigveda,* Mandala I, Hymn 64, Verse 15 in F. Max Müller (trans.), *Vedic Hymns,* Part I: Hymns to the Maruts, Rudra, Vayu and Vata (Sacred Books of the East, Vol. XXXII [Oxford: Clarendon Press, 1891]), p. 108.

in his house, or offers adoration to the loving one day by day. May he whom thou incitest be united with riches.[14]

The desire for riches is continually stressed.

May the liberal givers, O Agni, attain nourishment, may the rich who bestow gifts (on us) attain to a full span of life. May we win in battle the booty of him who does not give, obtaining a (rich) share before the gods, that we may win glory.[15]

Again we read:

With reverence I shall worship thee who art long-tailed like a horse, Agni, the king of worship. May he, our son of strength, proceeding on his broad way, the propitious, become bountiful to us. . . . Let us partake of all booty that is highest and that is middle; help us to the wealth that is nearest.[16]

Such hymns, which may be older than 2000 B. C.,[17] although from texts written between the fifth and sixth centuries B. C., show a people concerned with enjoyment of this life and little awed by reflections on the hereafter or sins likely to be committed in the worldly pursuit of physical satisfaction.

Thou, O Agni, keepest that mortal in the highest immortality, in glory day by day, (thou) who being thirsty thyself givest happiness to both races (gods and men), and joy to the rich.[18]

Another hymn to Agni corroborates such hedonism:

The gods discovered the graceful Agni concealed amidst the waters of the Flowing (rivers), for the purpose of (sacred) acts: Agni, who is intelligent, of purified vigour, and friendly; who from his birth bestowed happiness on earth and heaven. . . . Spreading through the firmament with shining limbs . . . he bestows upon the worshipper abundant food and great and undiminished prosperity.[19]

14. *Rigveda,* Mandala I, Hymn 71, Verse 6, in Hermann Oldenberg (trans.), *Vedic Hymns,* Part II: Hymns to Agni (Sacred Books of the East, Vol. XLVI [Oxford: Clarendon Press, 1897]), pp. 74-75.

15. *Rigveda,* Mandala I, Hymn 73, Verse 5, *ibid.*, p. 88.

16. *Rigveda,* Mandala I, Hymn 27, Verses 1, 2, 5, *ibid.*, p. 16.

17. Stuart Piggott *(Prehistoric India* [Harmondsworth, Eng.: Penguin Books, 1950], p. 255) fixes this between 1500 and 1400 B. C.

18. *Rigveda,* Mandala I, Hymn 31, Verse 7, Oldenberg, *Vedic Hymns,* p. 23.

19. *Rigveda Saṁhitā,* Mandala III, Hymn 1, Verses 3-5, in Manmatha Nath Dutt (ed. and trans.), *Rig-Veda Text with Sayana's Commentary and a Literal*

Indra is also called upon for his gift to human happiness:

> When Soma is extracted and poured, sing in a body unto Indra, the subduer of many enemies, the lord of many adorable deities. May he secure for us manliness (energy), may he secure for us riches, may he confer on us women, may he come to us with food. [20]

Even if these hymns are not strictly philosophical, yet they reflect certain ends thought worthy of attainment by the priests of the Vedic age.

It is generally held that the Vedic hymns are considerably older than their closest counterparts in Greek literature, the *Homeric Hymns*. [21] Certainly in comparing them we are vividly aware that the *Homeric Hymns* in their sophistication are closer to the Upanishads than to the Vedic hymns, although in their philosophical content, easily lose their superiority. In the "Hymn to Hermes" we may find some tenuous similarity to the *Rigveda* and *Rigveda Samhita* hymns in scattered lines such as:

> The sun was going down beneath the earth toward Ocean with his horses and chariot when Hermes came hurrying to the shadowy mountain of Pieria, where the divine cattle of the blessed gods had their steads and grazed the pleasant, unmown meadows. Of these the son of Maia, the sharp-eyed slayer of Argus then cut off from the herd fifty loud-lowing kine, and drove them straggling-wise across a sandy place, turning their hoof-prints aside. [22]

Or in lines such as:

> Then, like a star at noonday, the lord, far-working Apollo, leaped from the ship: flashes of fire flew from him thick and their brightness reached to heaven. [23]

Better than either of these, perhaps, is:

Prose English Translation (Calcutta: Society for the Resuscitation of Indian Literature, 1908), VI, 404-5.

20. *Rigveda Samhita,* Mandala I, Hymn 5, Verses 2-3, *ibid.*, p. 9.

21. It is believed that the earliest date of any hymn is not prior to the eighth century B.C. See Thomas W. Allen and E. E. Sikes (eds.), *The Homeric Hymns* (London: Macmillan Co., 1904), pp. 65-67.

22. Hugh G. Evelyn-White, *Hesiod: The Homeric Hymns and Homerica* (London: William Heinemann, 1914), p. 369.

23. "Hymn to Pythian Apollo," in Evelyn-White, *Hesiod,* p. 355.

> Ares, exceeding in strength, chariot-rider, golden-helmed, doughty in heart, shield-bearer, Saviour of cities, harnessed in bronze, strong of arm, unwearying, mighty with the spear, O defence of Olympus, father of warlike Victory, ally of Themis. . . .[24]

The composers of the Vedic hymns were probably Aryans, barbarians who swept into an empire of literate urban culture somewhere in what is now northwest India and Afghanistan. The hymns reflect the ideals and life of the upper classes of a society divided into warriors, priests, and artisans which became the foundation of a rigid caste system in a later age in India.

In several of the gods we can see the Aryans themselves,

> . . . magnified to heroic proportions. The greatest god of the *Rigveda* is Indra, to whom about one-quarter of the hymns are addressed, and he is the apotheosis of the Aryan battle-leader; strong-armed, colossal, tawny-bearded, and pot-bellied from drinking, he wields the thunderbolt in his more god-like moments, but fights like a hero with bow-and-arrows from his chariot.[25]

Unlike the Haṛappā civilization which they succeeded, these *Rigveda* Aryans had never known cities, but were agriculturalists, whose wealth was calculated in cattle. Bronze was known and hence metal smithy shared a place among the crafts along with carpentry and pottery. Beef and barley were eaten; mead was drunk as was spirituous soma, made from a now extinct plant, for religious ritual.

> By their power they pushed the well aloft, they clove asunder the rock (cloud), however strong. Blowing forth their voice the bounteous Maruts performed, while drunk of Soma, their glorious deeds.[26]

Skepticism in the non-Pyrrhonic sense is usually associated with naturalism.[27] Belief in the gods themselves is questioned in the *Rigveda* as well as belief in the alleged greatness of cer-

24. "Hymn to Ares," in Evelyn-White, *Hesiod*, p. 433.
25. Piggott, *Prehistoric India*, p. 260.
26. *Rigveda*, Mandala I, Hymn 85, Verse 10, in A. A. Macdonell (trans.), *Hymns from the Rigveda* (Heritage of India Series [London: Oxford University Press, 1922]), p. 58.
27. Although T. H. Colebrooke equates, incorrectly, the naturalism of Carvaka with Pyrrhonism. The skepticism of Carvaka is discussed in chapter 4.

tain gods, for example, Indra. There are sages in the *Rigveda* who ask: "Who ever has seen Indra?" They imply that if he has not been seen why should one believe in his existence? Faithless and impious men at the time of the composition of the *Rigveda* are considered important enough to be refuted by exhortation if not by logical argument. Systematic argumentation only appears with the Upanishads. That certain passages containing a skeptical viewpoint are preserved is the result of their being contained in verses or passages considered wholly orthodox, according to F. Max Müller.

Besides the verses in the *Rigveda,* there are also those in the *Rigveda Saṃhitā* which follow along this same line:

> Who has seen the primeval (being) at the time of his being born: what is that endowed with substance which the unsubstantial sustains:[28] from earth are the breath and blood, but where is the soul;[29] who may repair to the sage to ask this? Immature (in understanding), undiscerning in mind, I inquire of those things which are hidden (even) from the gods.[30]

> Which of these two, (Heaven and Earth), is prior, which posterior; how were they engendered; (declare), sages, who knows this? verily, you uphold the universe of itself, and the days and nights revolve as if they had wheels.[31]

> Who knows what is the truth, or who may here declare it? What is the proper path that leads to the gods? their inferior abiding places are beheld [the constellations?], as are those which (are situated) in superior mysterious rites.[32]

Perhaps there is a growing number who question sacrifice and gifts to Brahmans, these evidences of faith *(śraddha),* and who become known in the *Rigveda* as faithless *(asraddha),* and as repudiators of Indra *(anindra).*[33] There are some who mock Indra, as there are those who apologize for him. And Indra, a tricky, drunken braggart, who in one story assumes the

28. According to the commentator Sayana, the latter is the *prakriti* of Samkhya (M. N. Dutt, *Rig-Veda Text,* VI, 404 n.).
29. The soul is the aggregate of elements according to Sayana *(ibid.,* p. 405 n.).
30. *Ibid.,* pp. 404-5.
31. *Rigveda Samhita,* Mandala I, Hymn 185, Verse 1, *ibid.,* p. 459.
32. *Rigveda Samhita,* Mandala III, Hymn 54, Verses 5-6, *ibid.,* pp. 692-93.
33. Maurice Bloomfield, *The Religion of the Veda* (New York: G. P. Putnam's Sons, 1908), pp. 229 f.

outer form of a desired lady's priestly husband, in order to lie with her, appears to need some vindication. We should "bring lovely praise to Indra, vying one with the other, truthful praise, if he himself be true. Even though one or another says: 'Indra is not, who ever saw him, who is he that we should praise him?'"[34]

In a hymn of the *Rigveda,* considered by some to be the most important in the light of subsequent Indian philosophy, difficulties of speculation are frankly admitted by the composer (or composers), who evidently is left unsatisfied as to the nature of creation. It is the one piece of sustained Vedic speculation to be found and has acquired the title, "Song of Creation"; the hymn breathes a spirit of doubt concerning the origin and development of the universe. An attempt is made in the hymn to describe a kind of chaos or natural stuff out of which everything else proceeds. Next in appearance, after this primitive nature, is mind. Mind is the cause of desire and hence the ovum of action and instigator of karma. This is conscious mind, not an unconscious will pressing out of itself the world of desire and karma.[35]

> Non-being then existed not, nor being:
> There was no air, nor heaven which is beyond it.
> What motion was there? Where? By whom directed?
> Was water there, and fathomless abysses?
>
> Death then existed not, nor life immortal;
> Of neither night nor day was any semblance.
> The One breathed calm and windless by self-impulse:
> There was not any other thing beyond it.
>
> Darkness at first was covered up by darkness;
> This universe was indistinct and fluid.
> The empty space that by the void was hidden,
> That One was by the force of heat engendered.
>
> Desire then at the first arose within it,
> Desire, which was the earliest seed of spirit.
> The bond of being in non-being sages,
> Discovered searching in their hearts with wisdom.

34. *Rigveda,* Mandala II, Hymn 12, Verse 5, Macdonell, *Hymns from the Rigveda,* p. 49.

35. Louis de la Vallée-Poussin, "Karma," *The Encyclopaedia of Religion and Ethics,* VII, 674.

Who knows it truly? who can here declare it?
Whence was it born? whence issued this creation?
And did the gods appear with its production?
But then who knows from whence it has arisen?

This world-creation, whence it has arisen,
Or whether it has been produced or not,
He who surveys it in the highest heaven,
He only knows or ev'n he does not know it.[36]

Of the Vedic hymns those of the *Rigveda* are philosophically most important. The *Sāmaveda*, except for seventy-five verses, is taken directly from the *Rigveda*. The *Yajurveda*, whose verses were meant to be chanted at the soma sacrifice, was compiled for ritual application. The *Atharvaveda* in general was compiled later than the other three, although some passages may be earlier than parts of the *Rigveda*. While the *Atharvaveda* consists essentially of a collection of spells,[37] being a handbook of sorcery, it nevertheless contains a few speculative hymns such as those "To Time" and "To Desire." Instead of presenting the advanced religious beliefs and philosophical speculations of the priests, as does the *Rigveda*, it shows the more popular notions current among the masses. As A. E. Gough has it:

> As yet these worshippers feel themselves at one with the things around them; roused to work or fight in the glare and heat of the long bright day, by the freshness of dawn and the harsh notes of tropical birds. . . . There is little of moral or spiritual significance in this propitiation of the forces of nature. . . . The good man is he that flatters, feeds, and wins the favour of the gods.[38]

Contrasted with this attitude is the priestly speculation of the type found in the "Song of Creation." Yet other attempts are to be found in the *Rigveda*, such as in hymn X. 81:

36. *Rigveda*, Mandala X, Hymn 129, Macdonell, *Hymns from the Rigveda*, pp. 19-20.

37. A. A. Macdonell, *A History of Sanskrit Literature* (New York: D. Appleton and Co., 1900), p. 185.

38. Archibald Edward Gough, *The Philosophy of the Upanishads and Ancient Indian Metaphysics* (London: Trubner and Co., 1882), p. 11.

What was the place on which he gained a footing?
Where found he anything, or how, to hold by,
What time, the earth creating, Vicvakarman,
All-seeing, with his might disclosed the heavens?

What was the tree, what wood[39] in sooth produced it,
from which they fashioned out the earth and heaven?
Ye thoughtful men inquire within your spirit whereon
he stood when he established all things.[40]

In the next hymn, recited perhaps centuries before the birth of Thales, who had attempted to explain growth and unity by means of the principle of water, it is stated:

The waters, they received that germ primeval wherein
the Gods were gathered all together.
It rested set upon the Unborn's navel, that One
wherein abide all things existing.

Ye will not find him who produced these creatures: another
thing hath risen up among you.[41]

A later hymn continues this theme:

What time the mighty waters came, containing the universal
germ, producing Agni.
Thence sprang the Gods' one spirit into being. What
God shall we adore with our oblation?[42]

It is not our intention to make out of the *Rigveda* a strong case for presystematic naturalism in India, but to show possible roots of attitudes and beliefs that implemented later naturalism. Wonder is sometimes expressed that naturalistic attitudes should appear so early among a people who subsequently proved to be so traditionally nonnaturalistic. What we are attempting to show is that in the roots of the earliest

39. According to Macdonell *(A History,* p. 134), the term "wood" as used here is a cognate of the Greek *hule,* which meant "original matter."

40. *Rigvĕda,* Mandala X, Hymn 81, Verse 4, in Ralph T. H. Griffith (ed. and trans.), *Extracts from the Hymns of the Rigveda, Translated with a Popular Commentary* (3rd ed.; Benares: E. J. Lazarus and Co., 1920-26), II, 497.

41. *Rigveda,* Mandala X, Hymn 82, Verses 6-7, *ibid.*, II, 498.

42. *Rigveda,* Mandala X, Hymn 121, Verse 7, *ibid.*, II, 566. Compare this with the late forgery of Thales: "The much-discussed four [substances]—of which we name the chief [first] water, making it, so to speak, the one element . . ." in Hermann Diels, *Die Fragmente der Vorsokratiker,* ed. Walther Kranz (7th ed.; Berlin: Wiedmannsche Verlagsbuchhandlung, 1954), I, 80.

religious literature there was some important assertion of a naturalistic approach to life.[43] Certainly the hymns are a far cry from the sophistication of the Carvakas,[44] the earliest systematic naturalists in Indian history. Yet we need not be astonished if some of the skepticism and hedonism of the *Rig-veda* should rub off on later thinkers who might decide to retain the ideals without the deities expected to make them realizations.

The Upanishads

The traces of naturalism and protoscientific thought in the Upanishads are not negligible, although there is a general consensus among idealistic historians that the inspiration and eternal authority for these works come from the Vedas. There is little dispute today that the Upanishads are no earlier than the eleventh century B. C. Many of them are much later.[45] Of the eighteen main books, the *Swasanvad Upanishad* is probably the most outspokenly naturalistic. Its views have been summarized by the writer of the *Samkhya-Sutra:*

> There is no incarnation, no God, no heaven, no hell; all traditional religious literature is the work of conceited fools; nature, the originator, and time, the destroyer, are the rulers of things and take no account of virtue or vice in awarding happiness or misery to men; people deluded by flowery speeches cling to God's temples and priests when, in reality, there is no difference between Visnu and a god.[46]

43. See Lazarus Geiger *(Ursprung und Entwickelung der menschlichen Sprache und Vernunft* [Stuttgart: J. G. Cotta, 1868], I, 119 f.), who believed that the subsequent development of the Indian was to be made explicable by means of this Vedic key, the *Rigveda.*

44. Adolf Kaegi, *The Rigveda,* trans. R. Arrowsmith (Boston: Ginn and Co., 1886), pp. 28-29. According to Surendranath Dasgupta *(A History of Indian Philosophy* [5 vols.; Cambridge, Eng.: Cambridge University Press, 1922-55], III, 531), ". . . the lokayata views were very old (materialistic), probably as early as the Vedas, or still earlier, being current among the Sumerian people of pre-Aryan times." Ruben's account below is consistent with this contention.

45. See Swami Nikhilananda (ed. and trans.), *The Upanishads* (2 vols.; New York: Harper and Bros., 1949-51), I, 8-9.

46. M. N. Roy, "Indian Philosophy and Radhakrishnan," *The Philosophy of Sarvepalli Radhkrishnan,* ed. Paul Arthur Schilpp (New York: Tudor Publishing Co., 1952), p. 561.

The writers of the Upanishads sometimes allude to naturalism, but seldom approve of it for themselves except in a few noteworthy instances we shall mention. The general tendency is to take the view that "Some wise men, deluded, speak of Nature, and others of Time (as the cause of everything); but it is the greatness of God by which this Brahma-wheel is made to turn."[47]

According to the *Maitrī Upanishad,* there are certian unworthy individuals who attempt to oppose the Vedic ethics. These deny the existence of the self (later incorporated into Buddhism) and, like Bṛhaspati and Śukra, teach what is good (Vedic duties) to be bad and teach what is bad to be good by means of false analogies and illusory demonstrations.[48] Another passage, the author of which recognizes the existence of heterodox opinion, states:

> Should time, or nature or necessity, or chance, or the elements be considered as the cause, or he who is called the person (purusha, vignanatma)? It cannot be their union either, because that is not self-dependent, and the self is powerless, because there is (independent of him) a cause of good and evil.[49]

This clearly indicates discussion concerning the origin of the world or "nature." The earlier of the two passages quoted above shows that "wise men" had raised the question as to whether there were not a more primordial cause of all things than Brahman, which in the Upanishads means "great force," having meant "a mysterious power which can be called forth by various ceremonies" in the *Rigveda.*[50]

Of particular interest in the early Upanishads are the possibly fictional characters, Uddālaka and Yājñavalkya, the first representing the earliest naturalistic point of view recorded in Indian literature and the latter the most important

47. *Svetāśvatara Upanishad,* Adhyāya VI, verse 1, in F. Max Müller (ed. and trans.), *The Upanishads* (Sacred Books of the East; Vol. I [New York: The Christian Literature Co., 1897]), p. 260.

48. This is approximately the major charge made against Socrates in Plato's *Apology.*

49. *Svetasvatara Upanishad,* Adhyaya I, verse 2. The reference in this verse to "nature or necessity, or chance, or 'the elements" very likely points to the Ajivikas and perhaps the Carvakas.

50. Surendranath Dasgupta, *A History,* I, 36-37.

early idealistic view, to be ultimately consummated in the Vedanta philosophy. Even if Uddalaka is presumed a fictional character,[51] yet he presents a naturalistic point of view that must have been stated by someone. Furthermore, this viewpoint is earlier than that of the Ājīvikas, or of Carvaka or Lokāyata, usually called the first materialistic school, if not the only one, to appear in India. The date of Uddalaka is set at 640-610 B.C.,[52] which, if authenticated beyond a doubt, would make him prior to Thales.[53] The point of view represented by Uddalaka appears to have been that of the Breath-Wind Magicians who held, as opposed to their idealistic opponents, that the breath rather than thought or words was the most important element of the human being: briefly, a distinction between holding *stuff* rather than *thought* to be primary. Of such Breath-Wind Magicians who foreshadow the later clear-cut naturalistic outlook, there are at least eighteen among the one hundred thinkers mentioned in the oldest Upanishads. That would mean that roughly 18 per cent of the characters mentioned in compositions written before 626 B.C. tended toward a naturalistic interpretation of life. The more important of these include Ushasti, Baka, Kaushītaki, Raikva, Prātrda, Budkil, and Paingya. Ushasti, Budila, Baka, and Raikva are mentioned in the *Chandogya Upanishad;* Kaushitaki, Paingya, and the Anonymous One, in the *Kaushītaki Upanishad;* and the same Budila, in the *Śatapathabrāhmaṇa.*[54] Ushasti and the other Breath-Wind Magicians believed in rather earthly deities and tried to explain phenomena in terms of the fluctuations of breath and air instead of supernatural activities. They remind us sometimes of the Ionians who were also trying to return to, rather than take leave of, their *senses.* It must be admitted that many of them took Breath to be a deity in some sense.

51. Only Walter Ruben, at present director of the Institute of Indology in East Berlin, to my knowledge, has made a case for the authenticity of Uddalaka as a genuine naturalistic debator in early Upanishadic times. The account to follow depends upon his reconstruction in his *Geschichte der Indischen Philosophie* (Berlin: Deutscher Verlag der Wissenschaften, 1954), and in his *Beginn der Philosophie in Indien: Aus den Vedan* (Berlin: Akademie-Verlag, 1956), Vol. I.

52. Ruben, *Geschichte,* p. 83.

53. *Ibid.,* pp. 82-83. (Thales flourished 585 B.C.)

54. *Ibid.,* pp. 84-87.

Budila, like Sanatkumāra, also mentioned in the *Chandogya Upanishad,* questioned the validity of certain orthodox priestly notions.[55] It may be said in general that these Breath-Wind Magicians, although Brahmans, seriously questioned the ritual practices of the orthodox priests and did not trust in their mysterious shibboleths or believe in their metempsychosis. Judging from their beliefs, then, it may be argued that the Breath-Wind Magicians represent one of the earliest, if not the earliest, tendencies in the direction of a natural explanation of man's processes in contrast with the more mystical and idealistic approach of the Brahmans who emphasized the "supernatural" significance of words and thought as opposed to the "natural" significance of breath as a physiological or natural-cosmic process. This distinction may indeed appear subtle unless we understand it within the context of the history of scientific thought. The belief in the superefficacy of words and thoughts versus external natural processes has always been a mark of antinaturalism until the nineteenth century in Western Europe.[56]

Uddalaka, unlike the Breath-Wind Magicians, was not an ascetic or performer of ritual but a teacher-philosopher, who like Protagoras appeared to enjoy disputation and developed a sizable following. It was this following which saved his arguments for posterity.

Uddalaka broke with the major cosmological and theogonic tradition before him in the Vedas and held a hylozoistic and perhaps even materialistic view of the world. It is recorded in the *Uddālaka Jātaka* that he maintained the view that "If when a man knew a thousand Vedas and yet could not be free from misery, so long as he did not know the right path, my opinion is, that the Vedas are useless, the path of self-restraint is the truth."[57] He experimented with the effects of words and thoughts

55. *Ibid.*, p. 86.

56. See Sigmund Freud, "The Omnipotence of Thought," *Totem and Taboo, The Basic Writings of Sigmund Freud,* trans. and ed. A. A. Brill (New York: The Modern Library, 1938), pp. 73-77, and Paul Radin, *Primitive Man as a Philosopher* (New York: Dover Publications, 1957), p. 59. During the late nineteenth century there is an alliance between subjective idealism (phenomenalism) and physics through Ernst Mach (1838-1916) and his followers.

57. This may be a different Uddalaka, but, in the passage quoted, he sounds like the one of whom we have been speaking (Richard Fick, *The Social Organ-*

upon a young man who had stopped eating and discovered that the hymns recited from the Vedas did not affect his condition. On the other hand he noticed that the partaking of physical food brought about immediate improvement in the starving young man. This simple experiment may be considered typical of the simplicity of the naturalistic approach so classically stated in the story of the naked king.

Thought, according to Uddalaka, is made of the smallest particles of matter. It has its source in what is eaten as nourishment from the earth. The qualities of things as applied to human life include: (1) death, (2) fasting, (3) hunger, (4) thirst, and (5) sleep. These five are associated, in turn, with (a) thought, (b) thought, (c) nourishment, (d) nourishment, and (e) thought. These in turn are associated with (A) breath, (B) breath, (C) water, (D) water, and (E) breath. All of them depend upon fire (heat), which is the ultimate stuff.[58]

Being has always been here and develops itself out of itself without any intervention from outside, according to Uddalaka. In the sun what looks red is heat; what is white is water; what is black is earth, a color-being theory attributed to the father of Uddalaka, Aṛuna.[59]

The great opponent of Uddalaka, the first famous idealistic philosopher of India, was Yajnavalkya. Yajnavalkya held that the Great Spirit in the universe is like a musical instrument, whereas the world of stuff is like a tone struck from it. Hence, nature, like a tone, is beyond our grasp or understanding. But Uddalaka, on the other hand, stated that Being is like a tone in the sense that a tone must be made out of material stuff like the sound emitted from a material pot.[60] Without the pot, no sound; without matter, no being. Like Lucretius,[61] Uddalaka held that nothing can come out of nothing by divine power. He also felt that being is one. From this it follows that whatever

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isation in North-East India in Buddha's Time, trans. S. Maitra [Calcutta: Calcutta University Press, 1920], p. 24).

58. Ruben, *Geschichte,* p. 88.

59. *Ibid.*, p. 83.

60. *Ibid.*, p. 89.

61. Lucretius, "And so confess we must That nothing ever comes to be from nothing," *De rerum natura* i. 155-66, in Alban Dewes Winspear (trans.), *The Roman Poet of Science Lucretius De rerum natura* (New York: S. A. Russell The Harbor Press, 1956), p. 11.

is idea or thought must be dependent upon being (physical nature, like a pot) which is one. He may have thought that the smallest particles, the atoms, were composed of, or like, water which has been drunk. In any case, he did believe that very small particles made up such things as thought, although he did not have a clear conception of a world composed of atoms that made up the elements of breath, water, and fire.

Uddalaka was very important for subsequent Indian naturalism. He gave the earliest suggestions of the following notions: (1) a monistic, natural universe; (2) natural elements made up of physical being; (3) atomistic being; and (4) a method of analyzing meanings in terms of the physically observable that would appeal publicly to all the senses rather than to auditorially persuasive mystical and idealistic verses used by the ritualists. It is also held that he started the famous "Indian dialectic," the best Uddalakan example of which is as follows: "It is said that the being of this universe was originally non-being. But how is this possible? How can non-being be being? Truly, in the beginning was being!"[62] Finally, it is stated that Uddalaka left an optimistic imprint on an otherwise pessimistically oriented philosophical tradition, best exemplified at this time by Yajnavalkya. Mankind living according to nature, said Uddalaka, will attain satisfaction, but, in living according to sacerdotal superstition, he will find only hopelessness and helplessness. This again reminds us of Lucretius, who believed that optimism is warranted in a sane, naturalistic view of the world, but that misery follows from believing that what happens is outside of man's understanding and control (the mysterious way of the gods).[63]

The step from the Breath-Wind Magicians to Uddalaka is a significant one and the step from Uddalaka to Carvaka no less important for the naturalistic and protoscientific view of the

62. Ruben, *Geschichte*, p. 93. It is said that this dialectic later was adopted in the practice of Indian medicine (Ayurvedic). See Henry [Heinrich] R. Zimmer, *Hindu Medicine* (Baltimore: Johns Hopkins Press, 1948), and a reference to this in the chapter on Buddhism below.

63. Some of our South Indian friends in Madras believe that naturalistic systems lie buried in the untranslated literature of South India in such cities as Tanjore. Since writing the preceding note I have run across some indication of this in A. L. Basham, *History and Doctrines of the Ājīvikas: A Vanished Indian Religion* (London: Luzac and Co., 1951), pp. 262-75.

Indian philosophical world. This is true because in the Carvakas we have the first and possibly only unquestionable materialistic system in early India.[64] Some have held that there are two and others three different schools of Carvaka,[65] indicating perhaps that speculation rather than factual material makes up the larger literature about this system of naturalistic philosophy.

Another heretical doctrine mentioned in the Upanishads is attributed to the sage Virocana. According to him, the world of *loka* leads to happiness:

> And he who desires the world of perfumes and garlands (gandhamālya), by his mere will perfumes and garlands come to him, and having obtained the world of perfumes and garlands, he is happy. . . . And he who desires the world of women, by his mere will women come to receive him, and having obtained the world of women, he is happy.[66]

It is believed that this doctrine is allied to the belief that the self and body are identical, a cornerstone of the Carvaka school.[67] Those who adopted it rejected at a stroke *sruti*, transmigration, and karma.

In spite of the references to views tending toward naturalism in the Upanishads, it must be admitted that they are thin until we reach Uddalaka. But with Uddalaka we find a vibrant recognition of the naturalistic view of the world, a viewpoint which maintains a strong hold on the Indian mind until the Indian Middle Ages, beginning in the sixth century A.D.[68]

64. Despite the paucity of significantly early material written about them.

65. Mysore Hiriyanna, *Popular Essays in Indian Philosophy* (Mysore: Kavyalaya Publishers, 1952), p. 124.

66. *Chandogya Upanishad,* Prapāthaka VIII, Khanda ii, verses 1-9, Müller, *The Upanishads,* pp. 127-28.

67. Sures Chandra Chakravarti, *The Philosophy of the Upanishads* (Calcutta: Calcutta University Press, 1935), p. 204.

68. Walter Ruben, *Indisches Mittelalter* (Istanbuler Schriften, no. 3 [Istanbul, 1944]), chap. i. Chattopadhyaya's *Lokāyata,* A Study in Ancient Indian Materealism (New Delhi: People's Publishing House Private Limited, 1959) unfortunately came into my hands after the final proofs of this book were being checked. Consequently it was too late to incorporate his valuable insights and new materials. His emphasis upon understanding Indian ideology in terms of totemism and mother-right, for example, will be suggestive to any further accounts of early Indian naturalism.

3. THE CULTURAL SETTING OF EARLY INDIAN PHILOSOPHY WITH PARTICULAR REFERENCE TO THE AJIVIKAS AND CARVAKAS

Several of the great systems of Indian philosophy, Buddhism, Jainism, and Samkhya, originated in the early post-Vedic period (600-300 B. C.). Certain common orthodox doctrines were settling to the status of dogma at this time. These major doctrines were as follows:

1. *Transmigration,* the belief that the same soul may reside successively in more than one body,[1] or can create a new body.[2]
2. *Karma,* the belief that any action performed by a man leaves behind it some potency having the power to give him good or evil, joy or sorrow, in the future. If this potency cannot be actualized in this life, then a man must actualize it in some future life. Only the most wicked or most meritorious acts generally can be demerited or rewarded in this life, since it requires considerable time for the potency of more neutral deeds to be actualized. Every man has had innumerable past lives varying widely in content.
3. *Mukti,* the goal of all men, which is to be free from desire and hence free of action, thought, and feeling, all of which entail suffering.
4. *Life is suffering,* as all objects of the world are imper-

1. Ledger Wood, "Transmigration," *The Dictionary of Philosophy,* ed. Dagobert D. Runes (2nd ed.; New York: Philosophical Library, 1942).

2. Surendranath Dasgupta, *A History of Indian Philosophy* (5 vols.; Cambridge, Eng.: Cambridge University Press, 1922-55), I, 53 f.

manent, false guides luring man to hollow goals and empty satisfactions. The final note in this seemingly overwhelming tragedy is absolute confidence in one's own self in attaining the goal of final emancipation.

Amidst this view of life, Carvaka appeared as a discordant but optimistic movement, for it rejected altogether these claims. For Carvaka, the body and soul disintegrate simultaneously; all joy and pleasure is realized in this life as there are no past nor future lives; the goal of living is a mixture of maximum pleasure and minimum pain, it being childish to expect unqualified happiness.[3]

The heterodoxy of pre-Buddhist and pre-Jaina times is attested to in the Buddhist and Jaina literature itself. Certain "teachers of schools, well-known and of repute as founders of systems and highly honoured by many people,"[4] were recognized as senior to the Buddha and even Mahavira "for, as compared with them, master Gotama is young in years and is novice in the life of religion."[5] This heterodoxy appeared in the rapidly growing ascetic movement, which was made up of two groups: (1) hermits, who were attached to one place outside the village in adjoining forests, and (2) wanderers, who did not dwell "a second night in the same place except in rains,"[6] the torrential monsoon rains that would make walking all but impossible.

The Ajivikas

Heterodoxy in this period could be of three main types. If one were a Brahman, heterodox opinions might be pointed out to exist among the Jains, Buddhists, or the skeptical wanderers such as Upaka, the Ājīvika, who stands out as a symbol of benevolent incredulity, as is shown by the following passage:

3. M. Rangācārya (ed. and trans.), *Sankaracarya*'s [attributed to] *The Sarva-Siddhanta-Sangraha* (Madras: Madras Government Press, 1909), chap. ii.

4. Radha Kumud Mookerji, *Hindu Civilization* (London: Longmans, Green and Co., 1936), p. 222.

5. *Ibid.*

6. Hermann Jacobi (trans.), *The Gaina Sutras* (The Sacred Books of the East, Vol. X [New York: Charles Scribner's Sons, 1901]), pp. xxxii f.

> Upaka is said to have encountered the Buddha on the road to Gayā, immediately after the latter's enlightenment. He noticed the supernal calmness and peace in the bearing of the great teacher, and asked who he was, who was his instructor, and what were his doctrines. When the Buddha told Upaka of his enlightenment he merely said "It may be so, sir!" *(hupeyya āvuso)*, and went on by another way.[7]

According to the Buddhists, the Brahman ascetics were often heterodox, among whom were classified Vitandas and Lokayatas (Lokayatikas), that is to say, sophists, casuists, materialists, and, of course, the Ajivikas who were antinomian. Carvaka may well have been among the materialists, one who showed no respect for the other Brahmans. There were others, prominent non-Buddhists, whose considerable standing as teachers is attested to by their having been approached for instruction by the imperial king Ajātaśatru. If these are not Jains, they appear to be Ajivikas, a name that applied to Gosāla and his followers as "professionals,"[8] although in later times this meaning dropped away. Ajivika may also have indicated the lifelong character of the vows taken by those who followed Makkhali Gosala. The Buddhists, on the other hand, took only temporary vows.[9] Besides Makkhali Gosala, there were five other heretics mentioned in the Pali canon: Pūraṇa Kassapa, Ajita Kesakambalī, Pakudha Kaccāyana, Sañjaya Belatthiputta, and Nigaṇṭha Nātaputta. The teachings of these six heretics has been paraphrased from the Pali sources by A. L. Basham.[10] We shall take the liberty to quote from him, compressing wherever it is desirable.

The views of Purana Kassapa are as follows:

> "He who performs an act or causes an act to be performed . . . he who destroys life, the thief, the housebreaker, the plunderer . . . the highway robber, the adulterer and the liar . . . commits no sin. Even if with a razor-sharp discus a man reduce all the life on earth to a single heap of flesh, he commits no sin. . . . If he come down the south bank of the Ganges, slaying, maiming and torturing, and caus-

7. A. L. Basham, *History and Doctrines of the Ājīvikas: A Vanished Indian Religion* (London: Luzac and Co., 1951), p. 94.

8. A. F. R. Hoernle, "Ājīvikas," *The Encyclopaedia of Religion and Ethics*, I, 262.

9. Basham, *Ajivikas*, pp. 102-3.

10. *Ibid.*, pp. 13-17.

> ing others to be slain, maimed, or tortured, he commits no sin, neither does sin approach him. Likewise if a man go down the north bank of the Ganges, giving alms and sacrificing, and causing alms to be given and sacrifices to be performed, he acquires no merit, neither does merit approach him. From liberality, self-control, abstinence, and honesty is derived neither merit, nor the approach of merit."[11]

Purana, then, taught the doctrine of nonaction *(akirīyavāda)*, the essence of which was the denial of merit in virtuous activity and the denial of demerit even in heinous crime. It is said that he had some eighty thousand followers. Like many Ajivikas, some Buddhists and most Jains, he went about naked, a common practice at that time to give evidence that one held externals in contempt.

The views of Ajita Kesakambali, whom we shall discuss next, saving Makkhali Gosala for the last and most complete consideration, agree with Purana that there is no merit in sacrifice, offering, good deed, or evil deed.[12] There is no after-life; there are no ascetics who have reached perfection or experienced the world beyond or published what they learned in such a world.

> Man is formed of the four elements; when he dies earth returns to the aggregate of earth, water to water, fire to fire, and air to air, while the senses vanish into space. Four men with the bier take up the corpse; they gossip (about the dead man) as far as the burning-ground, (where) his bones turn the colour of a dove's wing, and his sacrifices end in ashes. They are fools who preach almsgiving, and those who maintain the existence (of immaterial categories) speak vain and lying nonsense. When the body dies both fool and wise alike are cut off and perish. They do not survive after death.[13]

These views are strikingly like those of Carvaka, as we shall see below.

The little we know of Pakudha Kaccayana suggests that he may have had some connection with later Vaisesika ontology, for he held that there are seven elementary categories, either ordered, made, caused, or constructed. The seven categories

11. From the *Sāmañña-phala Sutta,* quoted in *ibid.*, p. 13.

12. Based on Buddhaghosa's *Sumaṅgala-Vilāsinī* (commentary to *Dīgha Nikāya* of the Pali Canon), in *ibid.*, p. 15.

13. *Ibid.* See also S. Radhakrishnan, *Indian Philosophy* (2 vols.; London: George Allen and Unwin, 1948), I, 275.

are earth, water, fire, air, joy, sorrow, and life, which may be compared to the categories of substance *(dravya)* in Vaisesika: earth, air, fire, water, ether, time, space, mind, and soul.[14] No man slays these categories (elements), for "if a man cleave another's head with a sharp sword, he does not take life, for the sword-cut passes between the seven elements."[15] According to Mookerji, Pakudha should be credited also with the notion, so famous in the history of Western materialism, that "What *is* cannot be destroyed; out of nothing comes nothing *(sato nachchi vinaso asato nachchi sambhavo),*"[16] which is strikingly similar to the dicta attributed to Democritus: "Out of nothing arises nothing; nothing that is can be destroyed."[17] The same thought in Lucretius reads: "nothing is ever begotten of nothing by divine will . . . nor does she (nature) reduce ought into nothing."[18]

Of Nigantha Nataputta it is said that he was free from all bonds, possibly implying that either he had no system or having had a system, and by it having achieved perfection, he had no further use for it.[19] Basham, translating from the *Digha Nikaya* i, says:

> A *nigaṇṭha* is surrounded by the barrier of fourfold restraint. How is he surrounded? . . . He practises restraint with regard to water [possibly does not drink cold water], he avoids all sin, by avoiding sin his sins are washed away, and he is filled with the sense of all sins avoided.[20] . . . So surrounded by the barrier of fourfold restraint his mind is perfected, controlled, and firm.[21]

Sanjaya Belatthiputta was a skeptic who considered that

14. See the chapter on Vaiśesika, "The Categories," below.
15. *Digha Nikaya* i, quoted by Basham, *Ajivikas*, p. 16.
16. Mookerji, *Hindu Civilization*, p. 222. See also Basham, *Ajivikas*, pp. 90-93.
17. Quoted by F. A. Lange, *The History of Materialism* (3rd ed.; New York: Harcourt, Brace and Co., 1925), p. 19. I am unable to find these among the Fragments of Democritus.
18. T. Lucreti *De rerum natura libri sex* , trans. H. A. J. Munro (London: George Bell and Sons, 155-58).
19. Mookerji, *Hindu Civilization*, p. 221.
20. *Sumangala Vilasini* i, p. 168, quoted by Basham, *Ajivikas*, p. 16. See the four restrictions, including the drinking of cold water, in Hoernle, "Ajivikas," p. 264.
21. *Digha Nikaya* i, Basham, *Ajivikas*, p. 16.

knowledge of the self was unattainable and inquired into the possibility of attaining peace.[22]

> If you asked me, "Is there another world?" and if I believed that there was, I should tell you so. But that is not what I say. I do not say that it is so; I do not say that it is otherwise; I do not say that it is not so; nor do I say that it is not not so . . . (The same formula is repeated after various hypothetical questions.)[23]

It is this kind of talk that quite likely led the Buddha to take his stand that unanswerable questions are merely a waste of time, particularly when they led to skepticism regarding the Buddha's own utterances.

Makkhali Gosala, of all the six heretics, had the greatest influence on his contemporaries and the later Ajivikas. According to strongly authenticated tradition, he was a contemporary of Mahavira and the Buddha. He may have been teaching slightly prior to the Buddha, and some say that he was older than Mahavira, the historical founder of Jainism. Preponderance of opinion, however, suggests that he was somewhat younger than Mahavira (d. 486-467 B. C. -Jacobi), although some place Gosala's death at 485-484 B. C. and others at 500 B. C. Perhaps the wisest course is to say that he died in the fifth century B. C.[24] The best source at present for the life and opinions of Gosala is the Jaina *Bhagavatī Sūtra,* whose weakest point is that Gosala loses round after round in his discussions with Mahavira. According to the accounts in the *Bhagavati Sutra* and others in Buddhist works, Gosala was an ascetic whose unusual ways and irascible disposition can only be compared with that of Nichiren (b. 1222), the founder of the sect of Buddhism in Japan which bears his name.[25] A favorite feat of Gosala appears to be that of reducing his opponents to ashes, and his incendiary activities sometimes included whole villages. On the other hand his puritanical habits, although it is said that he did not forbid his followers from occasional lapses into meat-eating and fornication, his scorn of other men's re-

22. Radhakrishnan, *Indian Philosophy,* I, 275.
23. *Digha Nikaya* i, Basham, *Ajivikas,* pp. 16-17.
24. See Basham's discussion of this, *ibid.*, pp. 66-78.
25. See Sir Charles Eliot, *History of Japanese Buddhism* (London: Edwin Arnold, 1935), pp. 275-82.

ligious habits, his sneering at bridal processions, and other such churlishness not infrequently got him bitten, beaten, heckled, denounced as exceedingly pernicious by the Buddha, and frequently outwitted by Mahavira. There is some suggestion, on several occasions, nevertheless, that he and his followers were considered acceptable by both Jains and Buddhists.[26]

The main doctrines of Gosala were (1) disbelief in the efficacy of karma; (2) belief in complete determinism *(niyati)*; (3) antinomian ethics; and (4) a belief in atomism. As evidence for his disbelief in the efficacy of karma, Basham paraphrases Buddhaghosa and other writers as follows:

> There is neither cause nor basis for the sins of living beings; they become sinful without cause or basis. Neither is there cause or basis for the purity of living beings; they become pure without cause or basis. There is no deed performed either by oneself or by others (which can affect one's future births), no human action, no strength, no courage, no human endurance or human prowess (which can affect one's destiny in this life).[27] All beings, all that have breath, all that are born, all that have life, are without power, strength, or virtue, but are developed by destiny, chance, and nature, and experience joy and sorrow in the six classes (of existence). . . . There is no question of bringing unripe *karma* to fruition, nor of exhausting *karma* already ripened, by virtuous conduct, by vows, by penance, or by chastity. That cannot be done. Saṃsāra [human? existence] is measured as with a bushel, with its joy and sorrow and its appointed end. It can neither be lessened nor increased, nor is there any excess or deficiency of it. Just as a ball of thread will, when thrown, unwind to its full length, so fool and wise alike will take their course, and make an end of sorrow.[28]

The slogan of the Ajivika sect was "Human effort is ineffectual,"[29] which fits well with the epic tradition of fatalism. That many Ajivikas were warriors, suggests that the Ajivika creed appealed, as Shinto did in medieval Japan, to those who lived from day to day never knowing when the sword would end their lives. The greatest support for the Ajivikas, however,

26. Basham, *Ajivikas*, pp. 39-66.
27. *Sumangala Vilasini* i, pp. 160-61 quoted by Basham, *ibid.*, p. 13.
28. *Sumangala Vilasini* i, p. 164 quoted by Basham, *ibid.*, pp. 13-14; *Digha Nikaya* i, cited by Basham, *ibid.*
29. *Ibid.*, p. 9.

seems to have come from the "industrial and mercantile classes."[30] This may be one source for the belief, expressed by Stcherbatsky and Thalheimer, that the Carvakas were also of these classes.[31] The last reference to Ajivikas in Sanskrit literature occurs in the *Jātaka-pārijāta* by the astrologer Vaidyanātha Dīkṣita, who was probably born *ca.* 1425-50, while the last reference to them in the Tamil country is in 1292 in the *Syādvāda-mañjarī* of Malliṣeṇa, the Jain.[32] The height of Ajivika popularity may well have been during the reign of Asoka (274-237 B.C.), since at that time cave dwellings with polished interiors in the Barābar hills[33] were dedicated to Ajivika monks.[34] Gradually over the centuries the Ajivikas became absorbed into Jainism or Saivism, except for a small number who must have felt more congenial with the Carvakas, particularly the followers of Ajita Kesakambali. Another merging may have occurred with the Pāñcarātra sect of the Vaiṣṇavites who also believed that the soul (called by them *jīva* rather than *ātmā)* is made of atomic particles;[35] and they also agree in believing in *niyati* (determinism). Certain Tamil proverbs seem to have more than a flavor of Ajivikas doctrine: "One may bathe so as to wash off oil, but who can rub so as to free himself from fate. . . . Though a man exert himself over and over again he shall only get what comes on the appointed day,"[36] showing the rather late influence of Ajivika in South India. The emphasis upon cosmic order, even if it leads to pessimistic feelings among the less sturdy, is a major contribution of the Ajivikas to their time. The leap is not made

30. *Ibid.*, p. 32.

31. August Thalheimer also makes this statement about the Carvakas in his lectures, *Introduction to Dialectical Materialism,* trans. G. Simpson and G. Weltner (New York: Covici Friede, 1936), p. 112. Thalheimer probably borrows this notion from Stcherbatsky, who adduces no evidence for it in his *Buddhist Logic* (Bibliotheca Buddhica, XXVI [2 vols.; Leningrad: Academy of Sciences of the USSR, 1930-32]).

32. Basham, *Ajivikas,* p. 184.

33. Fifteen miles north of Gāya, roughly between Banares and Calcutta.

34. See K. A. N. Sastri, *History of India* (Madras: S. Visvanathan, 1950), pp. 67, 71.

35. F. O. Schrader, *Introdudion to Pāñcarātra and the Ahirbudhnya Saṃhitā* (Adyar, 1916), pp. 56-58, quoted by Basham, *Ajivikas,* pp. 280-81.

36. From H. Jensen, *A Classified Collection of Tamil Proverbs* (London, 1897), p. 5, quoted by Basham, *ibid.*, p. 283.

by the Ajivikas, Jains, or Buddhists to the realization that cosmic order if understood leads to control of that order, but this is dimly suggested only by the Carvakas. Perhaps rigid control seemed to fit the facts of ascetics and wanderers living under the autocratic Maurya government, whereas

> The rapid decline of popular support for Ājīvikism, which seems to have taken place after the Maurya period, may perhaps be attributed to the unconscious conviction that Ājīvika cosmology did not fit the facts as they appeared on earth. It will be remembered that the sect survived longest in districts ruled by the Cola kingdom [A.D. 850-1279], where the political machine seems to have functioned more smoothly and efficiently than in most other parts of India.[37]

Atomism

Both Ajita Kesakambali and Pakudha Kaccayana had rudimentary atomic conceptions scarcely developed enough to be called theories. Ajita, nevertheless, believed in the four elements, earth, air, fire, and water, and that aggregates were made up of them, while Pakudha believed in the seven elements, earth, air, fire, water, joy, sorrow, and life (soul). Although the Jains also believed in atomism, they never called souls atoms, even though they believed karma was. It is in this respect that Pakudha is closer to the Carvakas than to the Jains. This is the earliest authenticated instance of the atomic conception *(ca.* 600-500 B.C.). George Sarton mentions one which would be still older if historically verified, yet he scarcely puts enough stock in it to warrant our acceptance of it.[38]

Although, like the Jains and Buddhists, the Ajivikas first appeared in North India, by the time they had reached South India they had developed an atomic theory attested to by three important Tamil sources: *Maṇimēkalai, Civañāṇa-cittiyār,* and *Nīlakēci*. The first text states that the atoms are of four types, together with life, appealing to the so-called Book of Maṛkali, the last name being the Tamil rendering of Mak-

37. Basham, *ibid.*, p. 286.
38. Sarton *(A History of Science: Ancient Science through the Golden Age of Greece* [Cambridge, Mass.: Harvard University Press, 1959], p. 255) cites the supposed atomism of Mochos and Sanchuniaton of Phoenicia who were thought to have lived during the reign of the (legendary) queen of Assyria (824-812 B.C.).

khali (Gosala). "Life" is said to have the property of perceiving all the other four atoms in their combinations. All the atoms are said to be neither created nor destroyed,[39] and also, like the atoms of Lucretius, are impenetrable.[40] None of the atoms could split, multiply, expand, or grow, even though they could move and combine, coming together "densely to form a diamond, or loosely, as in a hollow bamboo."[41] The second text adds that the atoms will only combine in fixed proportions "into a sort of molecule, that of earth containing four atoms of earth, three of water, two of fire, and one of air. These proportions, 4 : 3 : 2 : 1, are the same as those of *Maṇimēkalai* . . . and it seems probable that both refer to the same doctrines."[42] That the atoms cannot be seen until they form aggregates or molecular forms as bhūtas also reminds us of Lucretius' view.[43] The characteristics of the individual atoms are as follows: of earth, hard, with a downward tendency; of water, cold with a downward tendency finding its level on the earth; of fire, upward motion while burning; and of air, motion in a horizontal direction.[44] In another account, earth has all the sense qualities except sound while water has coolness, fire has burning power, wind has howling and blowing power, and life has the power of instructing and knowing, comparable to Lucretius' view "that the nature of the understanding and the soul is formed of exceeding tiny seeds."[45]

39. According to Lucretius, "Then follows this, that nature breaks up each thing again into its own first-bodies, nor does she destroy ought into nothing" (Titi Lucreti Cari *De rerum natura libri sex*, ed. and trans. Cyril Bailey [Oxford: Clarendon Press, 1947], i. 213-15; all references hereafter are from this edition).

40. Lucretius says: "There are therefore bodies determined, such as can mark off void space from what is full. These cannot be broken up when hit by blows from without. . . . Therefore, if the first bodies are solid and free from void, as I have shown, they must be everlasting" (*De rerum natura* i. 523-35).

41. Basham, *Ajivikas*, pp. 263-64.

42. *Ibid.*, p. 264.

43. Lucretius says: "Then, further, since there are extreme points, one after another on that body, which our senses can no longer descry" (*De rerum natura* i. 598-99).

44. Basham, *Ajivikas*, p. 265.

45. Lucretius says: "Now of what kind of body this mind is, and of what parts it is formed, I will go on to give account to you in my discourse. First of all I say that it is very fine in texture, and is made and formed of very tiny particles" (*De rerum natura* iii. 177-80).

From all this it appears that the oldest Indian account of atomism is that of these early Ajivikas and that the Ajivikas provided the ground of the Jain, Buddhist, and later Hindu atomic theories,[46] and possibly of Carvaka atomism as well.

Determinism

A fundamental principle of Ajivika philosophy, as we have already mentioned, was the belief in the doctrine of determinism or fate, an almost unique determinism in the history of Indian thought since it was never shared by Jainism, Buddhism, or the later Hindu doctrines treated in our account of Indian naturalism. Only the Carvakas approached this view in their belief that nature is responsible for all that occurs. The difference between the two is that Carvaka did not believe that everything that happened was predetermined whereas the Ajivikas did. This doctrine of determinism, called *niyati,* gives no individual freedom in the sense that karma provides, although in looking into the karmic doctrine, one cannot be greatly impressed by the so-called freedom involved when one is aware that his plight in this world is so greatly determined by the deeds one has performed in his past lives. What we are suggesting is that, stripped of its inconsistencies, karma is not strikingly different from *niyati.* The Ajivikas gave up an illogical optimism for a logical pessimism, although it should always be noticed that optimism and pessimism are feelings of individuals and not groups or sects. The reader, for example, may feel optimistic regardless of his philosophy like many Calvinists who also believed in predeterminism. Just as the Calvinists might have been optimistic in spite of their predeterminism, so the Ajivikas might well have been optimistic despite their form of determinism. According to Basham, the Ajivika adherence to determinism did not mean that they rejected karma, but only that they thought that karma had lost its moral force, its effectiveness to produce change. Perhaps their view was again like that of Lucretius who believed in the gods but refused to maintain that they had any effect on nature or human beings. And here it should be noted that probably from the time of the Ajivikas to the present it was

46. Basham, *Ajivikas,* p. 269.

thought more odd and dangerous in India to reject karma than to reject the existence of the gods, at least until the supremacy of the Moguls with their insistence upon belief in Allah.

The Ajivikas believed that all beings are developed by *niyati*, by destiny, according to chance *(saṅgati)*, and nature *(bhāva)*. The ripening process of the world, unlike the evolution of *prakriti* in Samkhya philosophy,[47] is completely predetermined. Evidently the *niyativādins* like the *svabhāvavādins* (whose view is that all things happen according to nature) together made up a group called *akriyavādins* (or those who did not believe in the effectiveness of *puruṣakara)* who believe that works cannot effect any change.[48] *Niyati* is not one of a number of causes but is the only cause, a cause working like the ripening of a plant, unfolding the universe through time. Once it is decided that all happens according to destiny or chance, it must also be realized that the Ajivikas cannot have a rational ethic either individual or social. The only ethic possible is one which holds that we must wait for destiny to work. When destiny works, then transmigration works, but always according to preordination.[49]

47. See Samkhya chapter, "Evolutionary Doctrine," below.

48. See Hoernle, "Ajivikas," p. 261. See Basham, *Ajivikas*, p. 226. Hence their antinomianism.

49. Ascetics resembling the Ajivikas appeared in Kashmir during the reign of Harṣa (1089-1101) according to Kalhana's *Rajatarangini* (see chapter 1, "Indian Chronology"). It appears that by reason of family circumstances, Harsa preferred certain south Indian customs and fashions, including the use of coin-types from Kārṇāṭaka. Much of the metal for the coins was taken from temples that contained images of the various gods fashioned in precious metal. These were systematically melted down, and as a result Udayarāja was appointed to a special office: superintendent of the destruction of the gods (melter of the gods). Harsa was soon after slain in the hut of an ascetic named Guṇa, through the devices of Uccala the usurper.

The men who carried the images out of the temples were naked wanderers who defiled the images with ordure, urine, and spittle. These wanderers could not have been Moslem (because of their nudity), nor Hindu, Buddhist or Jain, judging by their probable objection to plastic and visual representation of the gods. It is therefore likely that they were Ajivikas, since the Carvakas would also not have gone naked. According to Basham, "This suggests the design on which the Ajivika caves of Barabar were based, the round hut in the rectangular courtyard [in which Guna, the ascetic, lived]. Finally the name of the ascetic, Guna, is the same as that of the famous *acelaka* or Ajivika teacher of the *Jataka*, who propounds a fatalist atomism entirely consistent with the doctrines of the Ajivikas" *(Ajivikas*, pp. 209-10).

Ajivikas and Carvakas

What the relationship between the Ajivikas and the Carvakas was we can only surmise as no examined literature states that the Six Heretics or their followers met the latter. One might be tempted to believe that the Ajivikas developed along one of two lines: either toward the more orthodox and respectable Jainism, Buddhism, and Hinduism (which we know to be partially true) or toward the less respectable and materialistic Carvakas. That the Ajivikas and Carvakas developed independently without cross-fertilization is not unlikely in a subcontinent so vast as India. Had they known each other, it is certain that some record of their discussions and comments on each other's weaknesses would be extant. They would certainly have disagreed on the value of the ascetic life, miraculous events, the nature of the gods, if not on more esoteric metaphysical and epistemological points. The Ajivikas' lack of emphasis upon epistemological questions, of course, suggests that they were earlier than the Carvakas. The Carvakas may well have been later than Mahavira and the Buddha judging simply by their materialistic sophistication. It is not impossible, of course, that there never was a Carvaka or Lokayata sect until a considerably later time, when these names were used as convenient labels to indicate the existence of heterodox opinions, where these would mean non-Brahman, non-Jain, non-Buddhist, and non-Ajivika speculation in the early post-Vedic or Rationalistic[50] period (600-300 B.C.).

The Carvaka Scene

Carvaka may have become a system for reasons of historical convenience: various heterodox opinions were sifted out and then put together again under this label. At the very least we can say that Carvaka was a system in the loose sense of a unified reconstruction of opinions shared by various thinkers at a certain time in northern India somewhere along the Gangetic Plain and perhaps northward to the foothills of the Himalayas. That Dasgupta cites the authority of Haribhadra and Mādhava for counting Carvaka as a system of philosophy scarcely mil-

50. See Romesh Chunder Dutt, *A History of Civilization in Ancient India* (2 vols.; rev. ed.; London: Kegan Paul, Trench, Trubner and Co., 1893), I, 199 f.

itates against this view since they wrote a thousand years after the period we are discussing.[51] Nor does the opinion of Macdonell, "That it was an old school is indicated by the fact that in the *Vinaya-piṭaka* the Buddhist monks were forbidden to occupy themselves with this doctrine,"[52] take us much further. The strongest argument in favor of the view that Carvaka was not a system as such is that there is little record of its ever having received any patronage such as the Ajivikas received from Asoka. Ascetics and wanderers who might have adhered to the doctrine would surely have been deprived of a livelihood through accepted means. Wealthy and powerful persons who may have adopted it in the face of hostile public opinion are not recorded.[53]

The Carvakas play a role similar to that played in Greece by the atomists and sophists. The view of Masson-Oursel is suggestive here. It is his claim that in world philosophy there have been three great periods of development after philosophy's appearance around the sixth century B. C. These are the Sophistic, the Scholastic, and the Critical. The Sophistic period in Greece would include the pre-Socratics, the Sophists, and Plato.[54] In India this period would include speculation until the systemizing and general ascendancy of Buddhism at about 250 B. C. during the reign of Asoka.[55] This would be comparable to "the first incarnation and the constant inspiration of scholasticism,"[56] the systematic works of Aristotle. The culmination of scholasticism is to be found for Buddhism in the works of perhaps Nāgārjuna, for Brahmanism in Śaṇkara, and for the scholastic West in St. Thomas Aquinas.

Radhakrishnan, attempting to depict the growth of anti-Vedic speculation, has penned a general picture of Carvaka times.

51. Surendranath Dasgupta, *A History*, III, 533.

52. Arthur A. Macdonell, *India's Past* (Oxford: Clarendon Press, 1927), p. 158.

53. If there were as such, they may have been merchants. See fn. 30 above.

54. See Paul Masson-Oursel, *Comparative Philosophy*, trans. V. C. C. Collum (London: Kegan Paul, Trench, Trubner and Co., 1926), Pt. II.

55. Vincent A. Smith, *The Early History of India* (Oxford: Clarendon Press, 1924), p. 164. Compare with Erich Frauwallner, *The Earliest Vinaya and the Beginnings of Buddhist Literature* (Serie Orientale Roma, Vol. VIII [Rome: Istituto Italiano per il Medio ed Estremo Oriente, 1956]), pp. 7-23.

56. Masson-Oursel, *Comparative Philosophy*, p. 106.

He says:

> The sense of failure, the failure of state and society, the loss of hope in the world, the diffidence of humanity threw the individual back on his soul and his emotions. . . . People were casting covetous eyes on short-cuts to salvation. A deep consciousness of worldly defeat was the inspiration of the times. The conception of a good God naturally goes with the moral government of the world. When suspicion of the nature of life on earth arises, the belief in God is weakened. When everybody thinks that life is suffering, at least a doubtful blessing, it is not easy to continue in the old faith. The faith of centuries was dissolving like a dream. The hold of authority was loosened. . . . In the tumult of thought consequent on the disintegration of faith and the declaration of the independence of man, ever so many metaphysical fancies and futile speculations were put forward. . . . We have the materialists with their insistence on the world of sense, the Buddhists with their valuable psychological teaching and high ethics. . . .[57]

The "metaphysical fancies and futile speculations" spoken of above were carried on generally by the ascetics of all schools "uttering their different doctrines, and fighting one another with words, weapons of mouth."[58] According to one account, the Śramanas and the Brahmans are "clever, subtle, experienced in controversy, hair-splitters, breaking into pieces their wisdom, as they go about, the speculations of their adversaries."[59] These Indian sophists wandered about dressed in cast-off clothing, wrapped in skins of black antelopes, or rags and bark, sometimes even naked, feeding on wild rice, fruits, and roots. Evidently they looked more like Socrates than like the well-groomed Protagoras as represented by Plato in his *Protagoras*. They were materialists and other heretics, rationalistic pundits *(hetumantaḥ)* befogged and stubborn by nature, opposed to good men, according to the accounts, "despisers of immortality and talkers in assemblies of people; they wander over the whole earth being fond of speaking and learned in revelation."[60] Some of these sophists may have originated the story about the parrot who consoles the scholars after the death of their Brahman teacher. The parrot says that it will take over

57. Radhakrishnan, *Indian Philosophy*, I, 274.
58. Mookerji, *Hindu Civilization*, p. 225.
59. *Ibid.*, quoting from the *Kassapa-Sihanada-Sutta*.
60. E. Washburn Hopkins, *The Great Epic of India* (New York: Charles Scribner's Sons, 1901), p. 87.

the teaching duties, and when asked how this is possible, it replies: "'I have listened when your teacher recited before you and have committed to memory the three Vedas,'" explaining knotty passages to the scholars.[61]

According to B. Heimann, at this time there was unquestioned acceptance of the independent, objective world, and of the fact that the Indian logic just being formalized was empirical throughout. The double trend in Indian thought at this time, of transcendentalism on the one hand and naturalism on the other, is so closely bound up that it hangs together without serious contradiction according to Heimann.[62] Even if we believe this to be sanguine, perhaps one instance of its kernel of truth may be seen reflected in Hindu and Buddhist art where the natural and transcendental are compressed into one art form as at the Ajanta Caves.

In the period under discussion, India was composed of four great kingdoms, Kośala, Avanti, Vaṃśa, and Magadha, and many lesser ones. Kosala and Vamsa were in north-central India, while Avanti was north of what is now Bombay. Magadha was west of present-day Calcutta. These four kingdoms covered what is generally regarded today as North India. Most of the prominent cities were located near or on the Ganges, the Jumna, or their tributaries. Magadha was the leading state and its king, Bimbisāra, a powerful and important monarch, attested to by Brahmans, Buddhists, and Jains alike claiming him a communicant. Ajatasatru,[63] regicide and patricide son of Bimbisara, continued the expansionism of his father, making of Pāṭaliputra (today Patna) the stronghold of North India.

Besides these great kingdoms were eleven virile republics such as that of the Sākiyas, from which the Buddha came, and

61. *Tittira Jākata* quoted by Richard Fick, *The Social Organisation in North-East India in Buddha's Time,* trans. S. Maitra (Calcutta: Calcutta University Press, 1920), p. 206. There are now phonograph recordings of the rote methods used in teaching the Vedas: The Twin Recordings, Ft. 15883, Pandit Madhvamuni, OMP 1302, 1303, made and distributed in India.

62. Betty Heimann, *Studien zur Eigenart Indischen Denkens* (Tübingen: J. C. B. Mohr [Paul Siebeck], 1930), pp. 165-66.

63. According to one tradition he became a convert to Buddhism after renouncing Jainism, an event captured in Barhut sculpture on exhibition at the Calcutta Museum of Archeology.

the Lichchhavis, slightly to the southeast of the Sakiyas who lived in the foothills of the Himalayas north of Banaras. The Lichchhavis were highly praised by the Buddha for holding full and frequent public assemblies after which the people acted in concord, for honoring and holding to established traditions, supporting old shrines, and honoring women,[64] by which was meant, not "detaining them by force or abduction."[65] These people were opposed to luxury and sloth, according to the Buddha, and hardened by hunting, archery, and sleeping on pillows of logs.

A kind of democracy extended from the political to the religious life of these republics. "At last, after many generations had come and gone, the sovereignty, it is said, was dissolved, the *democratic government* set up in the cities."[66] Buddhist Samghas, for example, were conducted under a quorum, with rules of order and motions followed by debate.[67] Women (nuns), let it be hastily added, were not allowed to vote, yet it must be said that only the Buddhist orders admitted women. Final decisions were made by a majority vote which was implemented by means of colored tickets of wood chosen in secret.

The social hierarchy which was perhaps introduced by the Aryans had been operating in Vedic times, but it did not become strictly rigid until the imperial age after the invasion of Alexander. The four main castes (*varṇa*—color) were the Brahman (priest), Kshatriya (royalty and warrior), Vaiśya (farmer and merchant), and Śūdra (worker). It is unlikely that the notion of "untouchability" had appeared, but new castes began to develop on the basis of intermarriage among the four parent castes.[68] This development was the result of the in-

64. Mookerji, *Hindu Civilization,* p. 206, quoting from the *Mahāpari Suttanta.*

65. *Ibid.*

66. See Megasthenes, Fragment I, cited by M. N. Law, *Aspects of Ancient Indian Polity* (Oxford: Clarendon Press, 1921), p. 5.

67. Mookerji, *Hindu Civilization,* pp. 209 f.

68. R. C. Dutt, *History of Civilization,* pp. 245 f. See also R. C. Majumdar and A. D. Pusalker (eds.), *The Age of Imperial Unity* (The History and Culture of the Indian People, Vol. II [2nd ed.; Bombay: Bharatiya Vidya Bhavan, 1953]), pp. 542 f.

clusion of non-Aryan tribes (a process continuing to the present day)[69] into the Hindu society.

The duties of the Brahman, Kshatriya, and Vaisya were to study the Vedas, perform sacrifices, and practice charity, but only the Brahman could perform sacrifices for others. The Brahman, alone of the three castes, was to receive alms. Individual Brahmans might engage in agriculture or trade if they did no manual work themselves.[70] It was the duty of the Brahman to teach members of his own and the other two educable castes. The duties of the Kshatriya were to protect all creatures, to administer, to support learned Brahmans, to support non-Brahmans in distress, to support non-Brahman ascetics who performed public services (e.g., physicians), to engage in war, and to collect taxes for defense. The duties of the Vaisya were to engage in agriculture, cattle raising, trade, and banking. It was the Sudra's duty to serve the three higher castes for wages (there were also slaves in Indian society who got no remuneration), and to practice independent crafts.[71]

The first basis of the social system was the caste system; the second basis was the four successive stages of life *(āśrama)* through which the three upper castes passed. These stages were: (1) that of initiated student; (2) that of householder; (3) that of recluse; and (4) that of hermit. Under quite exceptional circumstances the Sudra might also pass through these stages. When a man had lived with a teacher for some seven years or more he might marry. After his children were grown, he could retire and, after this act, withdraw to the forests to meditate.

An important feature of the social, economic, and political life of this period was the development of guilds which were given authorization from the *Dharma-sūtras*. The corporation of traders and artisans had the right to make important laws for themselves and also to have representatives at court. The

69. E.g., in Bangalore, Mysore, and Madras City, and doubtless in countless other places.

70. Under Megasthenes, the Brahmans and ascetics formed the highest class whose duties consisted in performing religious ceremonies, forecasting weather and health. See Majumdar and Pusalker, *The Age of Imperial Unity*, p. 550.

71. Mookerji, *Hindu Civilization*, pp. 129 f.

artisan guilds consisted of men hereditarily chosen for their crafts, living in particular quarters in a town or inhabiting an entire village. There were guilds even for laborers, whose total earnings were to be equally divided among the members.

There is evidence also of guilds having considerable military strength as a result of certain artisans carrying on their trade while belonging to the military. The silk-weavers on the borders of Surashtra, for example, were credited with great valor in battle, a fact which may remind one of some early Italian guilds.

By the second century B. C. the guilds are recorded as having a house of assembly where public business was transacted. The executive officers ultimately were responsible to the assembly, which had the right to punish them for misdemeanor. It was the right of the members to be heard at the general assembly. In certain instances of general public interest the king might arbitrate for the guild or set aside its ruling to prevent disturbances and gross injustice.

There are records of villages constituted solely of the families of a guild of carpenters near Banaras moving in their entirety.[72] There are instances of weavers moving from one kingdom to another for the sake of more lucrative employment, suggesting considerable mobility even though membership in the guild was hereditary. According to the *Mugapakkha Jātaka* vi, there were as many as eighteen guilds, made up probably of carpenters, metal workers, stone masons, leather workers, ivory workers, weavers, bamboo workers, makers of hydraulic engines, braziers, jewelers, potters, oil millers, rush workers and basket makers, dyers, painters, dealers in corn, fishermen, mariners, butchers, flower sellers and garland makers, herdsmen, and traders. There were also the police, moneylenders, and freebooters.[73] Such a division of labor is indicative of relatively advanced social organization.

It becomes quite clear that the Carvakas appeared in an advanced culture, democratic in certain ways and with considerable social mobility. It is even said by some that in

72. R. C. Majumdar, *Corporate Life in Ancient India* (2nd ed.; Poona: Oriental Book Co., 1922), p. 22.
73. *Ibid.*, pp. 18 f.

> . . . about 500 B. C. the word Lokāyata was used in a complimentary way as the name of a branch of Brahman learning, and probably meant Nature-lore—wise sayings, riddles, rhymes, and theories handed down by tradition as the cosmogony, the elements, the stars, the weather, scraps of astronomy, of elementary physics, even of anatomy, and knowledge of the nature of precious stones, and of birds and beasts and plants.[74]

As late as the sixth century A. D. the Chinese Ambassador Wang-Houen-Tse had discovered a Brahman in Kashmir, who professed to be a Lokayata, apparently practicing something like alchemy.[75]

It is apparent that Carvaka arose in a social milieu that looked upon naturalists with mixed feelings. The threatened caste viewed it with little admiration, but with considerable fear and loathing, since not only its living but its prestige was called into question. Its defense differed little from the defense of clericalism and special privilege associated with clericalism that may be found in both East and West. The second class was most favorable to it, partly because the Carvaka arguments appealed to men of practical affairs and partly because the Kshatriyas probably wanted to usurp the power already vested in the Brahmans. The third caste and any lower than it probably were in no position to consider seriously Carvaka views, although it may be surmised that they heard the sharp appraisals that the naturalists made of the life and institutions around them with mixed feelings of amusement and indignation.

74. Alfred Hillebrandt, "Zur Kenntnis der indischen Materialisten," *Aufsatze zur Kultur- und Sprachgeschichte vornehmlich des Orient. Ernst Kuhn Festschrift* (Breslau: M. and H. Marcus, 1916), p. 15.
75. Reported by I Tsing [I Ching] in *ibid.*, p. 16.

4. CARVAKA AND THE BEGINNINGS OF SYSTEMATIC NATURALISM

Carvaka and Greek Philosophy

The kettle that had been simmering boiled over in the Carvaka philosophy. Minor revolts, already mentioned, against the Vedas and their mass of sacrifices and ceremonies were focused into an iconoclastic rebellion of major proportions which, according to one commentator, verged on the vulgar.[1] The heterodox beliefs attributed to Carvaka immediately call up similarities between them and the Greek philosophers, Democritus and Epicurus. They also show an affinity to the Roman philosopher-poet, Lucretius. Even the reaction of other schools to Carvaka in India is paralleled in Greece. It is said that "Plato in fanatical zeal would have liked to buy up and burn all the works of Democritus,"[2] a view which is called "old-wives' gossip from Alexandria." Whether this is true or not, there can be little question as to Plato's hostile attitude toward naturalism or his latter-day fanaticism with regard to proper ideas.[3] A description of Carvaka, as told in the *Ramayana,* has him

1. R. C. Majumdar and A. D. Pusalker (eds.), *The Age of Imperial Unity,* (The History and Culture of the Indian People, Vol. II [2nd ed.; Bombay: Bharatiya Vidya Bhavan, 1953]), p. 478.

2. Diogenes Laertius, *Lives of Eminent Philosophers,* trans. R. D. Hicks (London: William Heinemann, 1925), Bk. IX; 40.

3. The Plato of the *Republic* and the *Laws* who approved the use of the expedient lie.

> . . . concealed under the garb of a mendicant, with a rosary, a lock of hair on his crown, and a triple staff, impudent and fearless, surrounded by all the Brahmans, exceeding a thousand in number, who were anxious to utter their benediction, – men who practised austerity and self-restraint, – this wretch, wishing evil to the magnanimous Pandavas, without saluting those Brahmans . . .[4]

is slain by the Brahmans through mighty Vedic incantations.

The calumny heaped on Epicurus, successor to Democritus, was scarcely less than that enjoyed by Petronius Arbiter. According to Diogenes, Epicurus was by some considered to be a "flatterer," "petulant," "narrow," "over-indulgent," and given to vomiting after meals, and, perhaps consequently, "unhealthy."[5] Lucretius received better treatment than his naturalistic predecessors, the worst things said about him being that he may have died of a love potion or committed suicide, having realized, perhaps too late, the hollowness of his philosophy.[6] That he was generally ignored for some five hundred years by "Christian and other barbarian philosophers" indicates the extent of his depravity.

Similarities between early Indian and early Greek philosophy have been a subject of constant interest in India[7] and even more particularly in the West recently.[8] Some of these have been striking: atomism, theory of elements, eternality of matter, transmigration, doctrine of flux, and doctrine of reminiscence. It would appear that similarities between Indian thought and the doctrines of the Gnostics and Neo-Platonists are even more

4. J. Muir, "Verses from the Sarva-darśana-sangraha, the Vishnu Purāna, and the Rāmayana, Illustrating the Tenets of the Chārvakas, or Indian Materialists with Some Remarks on Freedom of Speculation in Ancient India," *Journal of the Royal Asiatic Society* (London), XIX (1862), 309.

5. Diogenes Laertius, *Lives,* Bk. X, 5-7. See also Cicero's "Letter to Gallus," *The Life and Letters of Marcus Tullius Cicero* (London: Henry G. Bohn, 1848), pp. 117-18.

6. This last story is attributed to St. Jerome by G. D. Hadzsits, *Lucretius and His Influence* (New York: Longmans, Green and Co., 1935), p. 200.

7. See Beni Madhab Barua, *A History of Pre-Buddhistic Indian Philosophy* (Calcutta: University of Calcutta Press, 1921), pp. 281 f.

8. G. P. Conger recently examined the evidence on his extended overland journey through western India, Afghanistan, Iran, and westward in an effort to discover threads of connection, without tangible results. See Conger, "Did India Influence Early Greek Philosophies?" *Philosophy-East and West* (Honolulu), Vol. II (July, 1952).

striking.[9] We shall here, however, confine ourselves to considering the possibility of Greek influence upon Carvaka.

If the rising and flourishing of Carvaka is placed between 600 and 400 B. C., it is clear that it would be chronologically possible for the following Greek schools and philosophers to have influenced Carvaka: the Ionians, the Eleatics, the Pythagoreans, the Atomists, and the Sophists. It should be noted, however, that none of these Greek schools could have influenced Uddalaka.[10] The Eleatics or the Pythagoreans may be ruled out of the discussion since Carvaka scarcely shared their opinions. Since Sophists raised questions that had already been current in India prior to their time as, for example, in Buddhism and Jainism as well as among the early heterodox thinkers before and during the time of Uddalaka, their influence may be precluded. Again, so far as the Sophists are concerned, questions of language, philology, and grammar of absorbing interest to them had already been introduced by such great Indians as Yāska and Pāṇini. These two scholars had finished their important studies on language before such considerations had arisen in Greece. The problem is then reduced to whether or not the Ionians or Atomists exerted any influence on Carvaka. The answer seems to be that they did not. The reasons for this are as follows: There is no evidence that any work of these two schools ever appeared in India at the time; and there is no evidence that any member of these schools traveled to India or that any Indian interested in philosophy traveled to Greece at this time. Stories that Plato or Pythagoras visited India are of a later date and appear to be fabrications, as are accounts that Democritus associated with Gymnosophists there.[11] It appears at present, therefore, that Greek thought did not influence Carvaka.[12]

9. Richard Garbe, *The Philosophy of Ancient India* (Chicago: Open Court, 1897), pp. 32-56.

10. Since Uddalaka antedates Thales.

11. Garbe, *The Philosophy,* pp. 46 f.

12. Arthur Berriedale Keith (*The Religion and Philosophy of the Vedas and Upanishads* [Harvard Oriental Series, vols. XXXI-XXXII, ed. C. R. Lanman, (Cambridge, Mass., 1925], XXXII, 601) claims that the rise of philosophy in Greece was long subsequent to the beginnings of philosophy to be found in the *Rigveda,* from which Indian philosophy is an ordered development. Philosophically, it seems to us that Greece antedates India perhaps only in the development of logic if we consider all the branches of philosophy.

There is reason to believe, nevertheless, that the Carvakas shared certain qualities of mind with the early Greek philosophers. They were both critical of official theology, disposed to treat dogma lightly, presenting uncommonly open minds to speculation concerning epistemology, metaphysics, and ethics. Both were remarkably free from the trammels of the past; both felt it to be a right of the philosopher to look at the universe as a matter of private interest and not as a spokesman for some cherished tradition. But whereas some of the Greeks appeared to have been engaged in public life, as, for example, Thales the engineer, the Carvakas in the beginning appear to have been Brahmans, albeit apostate.[13] At the time the Carvakas appeared there seems to have been a general crisis among the Brahmans during which heterodox opinion was not unusual. The Carvakas so scandalously attacked the foundations of Brahmanism, however, that they probably helped to determine, by their opposition to what was generally acceptable, which orthodoxy would be established. Just as the Ionians left off telling tales, so did the Carvakas, but with the added difficulty of having to contend with a large and influential body of sacred literature: the Vedas, Brahmanas, Aranyakas, and earlier Upanishads, and the vested interests of their interpreters.

A drama of this period, the *Prabodha-Candrodaya*, indicates a materialist trend strong enough to be worthy of the dramatist's notice. Three of the characters who are involved in an attack on the Vedas in this play include a Materialist, a Pupil, and King Passion. King Passion asks: "What exploits have been performed by Vice?" and the Materialist teacher answers:

He has caused the most virtuous men to forsake the road commanded

13. A contrary opinion is that the Carvakas were merchants or members of the governing class. See Th. Stcherbatsky, *Buddhist Logic* (Bibliotheca Buddhica, XXVI [2 vols.; Leningrad: Academy of Sciences of the USSR, 1930-32]), I, 16. Some Soviet historians have repeated this, but without producing any evidence for it. It is our opinion that A. Thalheimer copied Stcherbatsky and consequently other Soviet writers have copied Thalheimer, since the hypothesis neatly fits parallel occurrences said to have happened in Greece. See, e.g., George D. Thomson, *Studies in Ancient Greek Society* (2 vols.; London: Lawrence and Wishart, 1954-55).

in the Vedas, and to follow their own inclinations. This achievement, however, belongs neither to Vice nor myself; for it was your Majesty who inspired us with courage. The people who are doomed to inferior duties, and who were created last [the lower castes] have renounced the three Vedas: who then are Quiet, Mortification and others [other characters in this play]? Besides, those who read the Vedas do it merely for the sake of subsistence. The teacher Brhaspati has declared that the performance of sacrifice, reading the Vedas, penances, and rubbing the body with ashes, are the means by which the ignorant, weak men contrive to support themselves. . . .[14]

Carvaka, a System of Indian Materialism

There is no overwhelming evidence, we saw earlier, for holding that Carvaka was a system, at least in the fifth and sixth centuries B. C. Yet the fact that these *nāstikas* (disbelievers in the infallibility of the Vedas) have been treated as a system by nearly all historians of Indian philosophy would seem to be a strong recommendation here.[15] In the following brief discussion, we shall consider Carvaka's being a school of materialism and hence, by implication, naturalism. For every school that is materialistic is also naturalistic although it is by no means true that all naturalistic schools are materialistic.

If we judge the appearance and disappearance of Carvaka in usual fashion, we may assume that it stealthily crept into Indian speculation, created an unpleasant turmoil, and passed away as mysteriously as it had come.[16] Some attempt has been made to reconstruct its possible development from Vedic times. One such attempt, made by D. R. Shastri, is probably as highly conjectural as the present one. He holds that Carvaka was at first a tendency of opposition and unsystematic criticism, largely on the theological level. Then it became incorporated into a kind of naturalism or *svabhāvavāda* as interest in cosmology and epistemology came to the fore. It next became in-

14. S. Radhakrishnan and Charles A. Moore, *A Source Book in Indian Philosophy* (Princeton, N. J.: Princeton University Press, 1957), pp. 248-49.
15. Writers from both the idealistic and naturalistic point of view.
16. G. P. Conger, "Outlines of Indian Philosophy," *Philosophy—East and West*, ed. Charles A. Moore (Princeton, N. J.: Princeton University Press, 1946), p. 15.

terested in ethical problems, developing its doctrine of hedonism. Finally it merged with other more powerful *nastika* schools, such as Buddhism and Jainism, in opposition to Brahmanism.[17] We are faced with two difficulties with regard to this threefold development: (1) Shastri produces no evidence for it, and (2) Dasgupta mentions a Carvaka thinker of the seventh century A.D. who modified the extreme rejection of the doctrine of inference attributed to the early Carvaka school. If Dasgupta is correct, it appears unlikely that Carvaka merged with Buddhism and Jainism. There is a stronger reason, however, for questioning this alleged merger, namely that there is no evidence for it in the Buddhist and Jain literature. On the contrary, the evidence points to positive and unqualified rejection of views associated with Carvaka.

Those *nastikas* who made up what will be called the Carvaka school held the following opinions, which Tucci gleaned from an exhaustive examination of the relevant sources:

1. Sacred literature should be disregarded as being false.
2. There is no deity or supernatural.
3. There is no immortal soul; nothing exists after death of the body.
4. Karma is inoperative; it is an illusion.
5. All is derived from material elements *(mahābhūta)*.
6. Material elements have an immanent force *(svabhāva)*.
7. Intelligence is derived from these elements.
8. Only direct perception gives true knowledge *(pratyakṣa)*.
9. Religious injunctions and the sacerdotal class are useless.
10. The aim of life is to get the maximum of pleasure.[18]

It is obvious from this list that Carvaka is materialistic, hedonistic, and opposed to all Brahmanical orthodoxy.

Indian materialism was known anciently as Lokayata or *Carvaka*. Lokayata consists of two Sanskrit words, *loka* and *āyata*, the former having to do with "in the world" and the latter with "basis" or "prevalence." As an adjective Lokayata means "prevalent in the world"; as a technical term it means

17. D. Ranjan Shastri, "Carvaka Philosophy," *The Humanist Way* (Calcutta), Vol. IV (1949-50).

18. Giuseppe Tucci, "Linee di una storia del materialismo Indiano," *Atti della Reale Accademia Nazionale dei Lincei* (Roma), Serie sesta, Vol. II (1926).

"the science of disputation, sophistry and casuistry."[19] One interpretation from Buddhaghoṣa is that it means "'the basis of the foolish and profane world.'"[20] It is believed that there was a book called the *Lokāyata* in existence earlier than 150 B.C., which was a work of logic, disputation, and sophistry.[21]

Carvaka has generally meant "materialism" more specifically than Lokayata, being preferred to the latter presumably because Carvaka was the name of a philosopher propounding materialist doctrines in India. Carvaka has also been considered to have a separate meaning, stemming from analysis of the word itself. The literal meaning of Carvaka in Sanskrit is "sweet-tongued," that is, *carv* means "to eat or chew" and *vak* means "word." Hence Carvaka might mean "pleasant words" because the general feeling about this philosophy was that it proclaimed a doctrine of "eat, drink, and be merry."[22]

It is believed that there once existed *Cārvāka-sūtras*, attributed to Brihaspati, upon which were based two commentaries written by the seventh century A.D. Each of the commentaries represented different interpretations of the *Carvaka-sutras*. This Brihaspati was believed to be the son of Loka, which suggests a connection with Lokayata.

Theory of Knowledge

Carvaka holds that knowledge is acquired only through perception by means of the five senses. "Whatever is arrived at by means of direct perception, that alone exists. That which is not perceivable is non-existent, for the (very) reason that it is not perceived."[23] As long as there is a body, not destroyed by death, there is an entity that can be a perceiver and enjoyer of experience, the Carvakas maintained. Perception is of two

19. Surendranath Dasgupta, *A History of Indian Philosophy* (5 vols.; Cambridge, Eng.: Cambridge University Press, 1922-55), III, 513.

20. In the *Sarathha-Pakasini,* cited by Dasgupta, *ibid.*

21. Madhava, (Acharya) *Sarva-Darsana-Saṃgraha,* trans. E. B. Cowell (London: Kegan Paul, Trench, Trubner and Co., 1914), p. 2.

22. S. Chatterjee and D. M. Datta, *An Introduction to Indian Philosophy* (3rd ed.; Calcutta: Calcutta University Press, 1948), p. 64.

23. M. Rangacarya (ed. and trans.), *Sankaracarya's* [attributed to] *The Sarva-Siddhanta-Sangraha* (Madras: Madras Government Press, 1909), p. 2.

kinds: external and internal.[24] The external is represented by means of the five senses, and the internal is what is given by the operation of the mind. Whenever there is contact between an external object and the senses, knowledge results, although further knowledge may be acquired through the processes of the mind operating with the sense knowledge. Ultimately, however, all knowledge is derived from the senses, and, hence, it is held that only matter consisting of the four elements of earth, air, fire, and water can truly be said to exist.

The origin of knowledge for Lucretius is much the same. It should be remembered, however, that Lucretius' account, based on Democritus and Epicurus, is perhaps four to five hundred years later than the early Carvaka school. According to Lucretius:

> You will find that the concept of truth is begotten first from the senses, and that the senses cannot be gainsaid. For something must be found with a greater surety, which can of its own authority refute the false by the true. Next then, what must be held to be of greater surety than sense? Will reason [Carvaka's inner perception] . . . avail to speak against the sense, when it is wholly sprung from the senses? For unless they are true, all reason too becomes false.[25]

If all knowledge is immediately derived from the senses, say the Carvakas, induction is not a valid method for acquiring information about the external world, because induction must depend upon some universal and necessary relation, "a doctrine which they had to establish, unhappily for themselves by inference."[26] They believed that by a mere multiplication of individual instances obtained by sense perception it was impossible to ascend to a knowledge of universal truths. It would

24. Madhava, *Sarva,* p. 6.

25. Titi Cari Lucreti *De rerum natura libri sex,* ed. and trans. Cyril Bailey (Oxford: Clarendon Press, 1947), 477-87; all references hereafter are to this edition. Charles S. Peirce, founder of American Pragmatism, once said: "But I myself happen, in common with a small but select circle, to be a pragmatist, or 'radical empiricist,' and as such, do not believe in anything that I do not (as I think) perceive: and I am far from believing the whole of that" *(Collected Papers,* ed. Arthur W. Burks [8 vols,; Cambridge, Mass.: Harvard University Press, 1958], VII, 369).

26. Arthur Berriedale Keith, *Indian Logic and Atomism: An Exposition of the Nyāya and Vaiçeṣika Systems* (Oxford: Clarendon Press, 1921), p. 57.

be necessary for the universal that it be shown to exist in instances of unvarying concomitance. This, Carvaka believes, would require that concomitance be perceived at all times by the senses. The mind itself cannot supply any desired information, according to Carvaka, that might establish concomitance, for as we have seen, it depends upon sense information. Perception shows, in the case of fire and smoke, that in particular instances of smoke appearing fire is also present. This is as far as external perception can take us. "Nor may you maintain that this knowledge of the universal proposition has the general class as its object, because if so, there might arise a doubt as to the existence of the invariable connection in this particular case. . . ."[27] Furthermore, the nature of things is such that objects differ in their qualities, even when they are of the most striking similarity; hence, it is not possible for two things to agree with each other under identical circumstances of time, place, and quality.[28]

Experience of even a large number of instances does not preclude the possibility of failure of agreement appearing in the next instance. Universals, on the ground that they do not exist because never perceived, are always inadmissible. If they are inadmissible, then, in attempting to discuss invariable succession, we are talking about particular smokes and fires, not about fireness and smokeness. Suppose that we were to be so fortunate as to see or have seen all instances of the succession of smoke and fire; even this act would not establish invariable succession and, hence, induction. We should also have to know all instances in which there is no smoke and no fire to determine if one should appear in the absence of the other. It is impossible enough to see most positive instances without further bringing in the added burden of witnessing the negative instances. Yet Carvaka demands the knowing of all instances of agreement in presence and all instances of nonagreement in absence.

This position, held by early Carvaka, was modified later by Purandara *(ca.* seventh century A.D.), who held that the usefulness of induction cannot be denied when it applies to the

27. Madhava, *Sarva,* p. 6.

28. In the *Nyāya-mañjarī* of Jayanta, 119, quoted by Surendranath Dasgupta, *A History,* III, 535.

world of perceptual appearance (experience). When an attempt is made, however, to employ induction in the realm of the transcendent, as the orthodox Brahman will, it must be admitted to be worthless. This transcendent realm includes what is not open to perceptual experience, namely dogmas about the transcendent world, transmigration, and karma. None of these is open to sense perception without which induction is meaningless, depending as it does upon a multiplication of instances.[29]

According to Charles A. Moore, the only authentic extant text of Carvaka is the *Tattvopaplavasiṃha* written in the seventh century A. D.[30] In this work inference is refuted by the Carvaka writer's attacking the major premise upon which all syllogistic reasoning depends. A short quotation gives us a clue to Carvaka's analytic approach to the problem of inference.

> There is another reason why the knowledge of an invariable relation [without which there can be no inference on the basis of universal principle] cannot be established. Is it the cognition of a relation between two universals, or between two particulars, or between a universal and a particular? It cannot be the cognition of a relation between two universals, then that is incorrect for the universal itself is not demonstrated *(anuppatti)*. That it is not demonstrated has already been shown. Nor is it possible to conceive of such a relation subsisting between a universal and a particular object because of the indemonstrability [or impossibility, *asaṃbhavāt]* of universals.[31]

A study by Walter Ruben on the *Tattvopaplavasimha,* which has appeared since Moore's discussion, indicates that the author of this work, Jayarāśi Bhaṭṭa, is not a materialist, not in the Carvaka tradition, but rather an agnostic, "without himself representing materialistic or idealistic teachings, but also at the same time denying the existence of matter or the possibility of practical life."[32] If we accept Ruben's interpretation, as we are inclined to do, Jayarasi may be considered a seventh-century naturalist but not a materialist and hence not

29. Surendranath Dasgupta, *A History,* III, 536.
30. Radhakrishnan and Moore, *A Source Book,* p. 227.
31. *Ibid.*, p. 237.
32. Walter Ruben, "Über den Tattvopaplavasimha des Jayarāśi Bhatta, eine agnostizistische Erkenntniskritik," *Wiener Zeitschrift für die Kunde Süd- und Ostasiens und Archiv für Indische Philosophie* (Vienna), II, (1958), 5.

a Carvaka. The question should be raised, granting this new interpretation, as to whether Carvaka and Lokayata are materialistic through and through or whether Carvaka is such a loose term as to include other naturalists, agnostics, and analysts tending toward idealistic interpretations. Idealistic labeling like materialistic labeling must be carefully scrutinized for overzealousness and the partisan spirit.

There are other objections made by Carvaka concerning so-called indirect, inferential knowledge, including what we today call induction. Among these are (1) that inference must depend upon other statements, namely, perceptual ones; (2) that objects themselves do not directly produce inferential knowledge; (3) that inferential or inductive knowledge is often contradicted by experience; (4) that there is no proof establishing necessary connection; and, finally, (5) that impressions "made" by inferential or inductive knowledge are dim as compared with the vivid impressions of perceptual knowledge.

This belief of Carvaka, that perceptual knowledge gives us vivid impressions as contrasted with the dim impressions of inferential knowledge, reminds us of the view of Hume that perceptions which enter with violence are impressions, while perceptions which are images of these are faint (dim). Impressions for Hume are of two kinds: those of sensation and those of reflection. The impressions of sensation for Hume would be analogous to the impressions of perception for Carvaka. But whereas Hume and the Buddhists would interpret internal impressions as revealing a series of states having no permanence, the Carvakas believe that these impressions reveal a body-consciousness entity or substance having some permanence, although not immortality.

The Carvakas, furthermore, insist that we are not confined to our impressions and ideas, but that their existence points to an external world which is precisely as the impressions indicate. The Carvaka belief regarding the initial knowledge situation, despite the resemblance to Hume with regard to the distinction between lively and dim ideas, is really more like Locke's view. Carvakas believe, like Locke, that there are, first, sensations (impressions) and ideas; second, a self to which these belong; and, finally, external objects which they

represent. The following quotations, the first from Locke and the second from Hume, will make it quite clear that the Carvaka position concerning the self is more like Locke's than like Hume's.

> As for our own existence, we perceive it so plainly and so certainly, that it neither needs nor is capable of any proof. For nothing can be more evident to us than our own experience.[33]

> Without this quality, by which the mind enlivens some ideas beyond others . . . we could never assent to any argument, nor carry our view beyond those few objects which are present to our senses. *Nay, even to these objects we could never attribute any existence but what was dependent on the senses,* and must comprehend them entirely in that succession of perceptions which constitutes our self or person.[34]

It would appear, nevertheless, that Carvaka is particularly close to Humean analysis where Hume holds that "we could only admit of those perceptions which are immediately present. . . ."[35]

The Carvaka position, that necessary connection is insusceptible of proof because it is impossible to perceive all instances simultaneously, is again like Hume's position with regard to causality. The early Carvakas, however, say that since we cannot establish any connection, let us admit this and remain silent; the later Carvakas, like Hume, feel that even if a connection cannot be established, we may act "as if" it were to enable us to carry on practical affairs.

The view that ideas are somehow weaker or less vivid than sense impressions is not, of course, initiated in the West by Hume. It is at least as early as 269 B. C., having been held by Strato of Lampsacus, scholarch of the Lyceum (288 ?-269 B. C.). Strato believes the soul to be a material *pneuma,* and thought, residing at the base of the forehead, a weakened sensation requiring a new corporeal impression to restore its original liveliness.[36]

33. John Locke, *An Essay Concerning Human Understanding,* ed. Raymond Wilburn (London, 1947), Bk. IV, chap. ix, sec. 3, p. 297.

34. David Hume, *A Treatise of Human Nature,* ed. L. A. Selby-Bigge (Oxford: Clarendon Press, 1896), Bk. I, chap. iv, sec. 7.

35. Cf. Chatterjee and Datta, *An Introduction,* pp. 65 f.

36. Leon Robin, *Greek Thought and the Origins of the Scientific Spirit,* trans. M. R. Dobie (New rev. Fr. ed.; New York: Alfred A. Knopf, 1928), p. 310.

Probable knowledge, according to later Carvaka, must always be corroborated by further perception. In the Carvaka school, it is likely that opinion ranged from individuals who held that even perception was open to serious question as giving true knowledge because of the undeniable fact of illusions to those who felt that probable knowledge, reliable enough for practical purposes, could be acquired through induction.[37]

Carneades (216-129 B. C.), the leading skeptic of the New Academy in Athens, had a view like that of later Carvaka with regard to probability. The main difference between the view of Carneades and later Carvaka is that while Carvaka quite uncritically accepts the testimony of sense, Carneades holds that, since there are false perceptions, we cannot get certain knowledge via that medium. "There is no intrinsic difference in perceptions by which it is possible to know which are false."[38] On this view of Carneades it is impossible to assume any criterion of knowledge: sense perception, conjecture, or reason. Both Carneades and Carvaka come to the same conclusion with regard to the untrustworthiness of reason (extrapolation, generalization, universal judgments). Carneades rejects reason on the ground that the senses are untrustworthy; the later Carvakas reject it on the ground that one can never know all instances of trustworthy perception.

Carneades, however, agrees with later Carvakas who believe that for practical purposes we must depend upon probabilities since we are assured of no certainty. According to Sextus Empiricus:

> But that which appears true, and appears so vividly, is the criterion of truth according to the School of Carneades. . . . Probability, in the present instance, is used in three senses—in the first, of that which both is and appears true; in the second, of that which is really false but appears true; in the third, of that which is at once both true and false. Hence the criterion will be the apparently true presentation, which the Academics called "probable"; but sometimes the impres-

37. Surendranath Dasgupta, *A History*, III, 539.

38. M. M. Mills, *The Greek Skeptics* (New York: Columbia University Press, 1929), p. 155.

sion it makes is actually false, so that we are compelled at times to make use of the presentation which is at once both true and false.[39]

We have no record as to a possible analysis by Carvaka of the degrees of probability as attributed to Carneades by Sextus Empiricus.

The Carvakas appear to have little regard for the testimony of others, verbal or written. We have already seen that they regarded the *sruti* as being worthless as a source of information or wisdom. It is reported that they held that "the scriptural view that the performance of sacrifices produces wonderful results is directly contradicted by experience, and is as false as the Puranic story of the floating of stones."[40] Testimony must be established by other testimony and an infinite regress occurs unless this chain is broken by the injection of direct experience itself.

If testimony were acceptable, one could accept the testimony of the Vedas or Manu,[41] but the reason that they cannot be trusted is that all testimony is questionable: (1) on logical grounds (as they lead to infinite regress) and (2) on epistemological grounds (that it is impossible for perceptual knowledge to be communicated). A man knows what he perceives, not what another says *he* has perceived. Testimony of the Vedas is open to a further charge: that it is not only worthless on logical grounds as being self-contradictory, on epistemological grounds as contrary to experience, but also on ethical grounds as being unworthy of being perpetrated by moral men.[42]

> The agnihotra, the three Vedas, the ascetics *(sic)*
> three staves, and smearing one's self
> with ashes,
> Were made by Nature as the livelihood of
> those destitute of knowledge and manliness . . .
> The three authors of the Vedas were buffoons,
> knaves and demons.

39. *Sextus Empiricus*, trans. R. G. Bury (4 vols.; London: William Heinemann, 1933-39), i. 173-76.

40. Surendranath Dasgupta, *A History*, III, 539, quoting Śrīharṣa's *Naiṣadhacarita*.

41. Madhava, *Sarva*, p. 7.

42. S. Radhakrishnan, *Indian Philosophy* (2 vols.; London: George Allen and Unwin, 1948), I, 282.

> All the well-known formulae of the pandits,
> jarphari, turphari &c. *(sic)*
> And all the obscene rites for the queen[43]
> commanded in the Aswamedha,
> These were invented by buffoons, and so all
> the various kinds of presents to the
> priests. . . .[44]

Finally, comparison and analogy give us no true knowledge, for these have even less force than the multiplication of instances in forming general propositions. The role of analogy in giving a picture of the so-called transcendent world is sufficient to make it doubly suspect.

Metaphysics

Carvaka metaphysics is an unqualified materialistic monism, claiming that the world is made up of four elements: earth, air, fire, and water. These elements were not created by any deity, nor are their ways guided by any supernatural agency. "According to the doctrine of the Lokayatas, the ultimate principles are merely the four elements, viz. *(sic)*, earth, water, fire, and air, and there is nothing else."[45] There is one natural world, made up of the basic elements.

Higher than this world there is none.

> There is no *svarga* (or celestial world of enjoyment) and no hell. The world of Siva and other such (worlds) are all invented by those who are (followers of) other (systems of thought) than (what is followed by) ourselves and are (therefore) ignorant imposters.[46]

The universe is accepted as uncreated, composed of matter out of which all that exists is produced. While consciousness is not observed to inhere in the elements of matter,[47] yet, when these are arranged in a certain order, they are shown to have life and consciousness. We are again reminded of Lucretius,

43. Muir, "Verses from the Sarva," has it that: *"Fama notum est equi membrum genitale a regina capiendum esse"* (pp. 303 f).

44. Madhava, *Sarva,* p. 10.

45. Rangacharya, *Sankaracarya*'s, p. 5.

46. *Ibid.*

47. A view held by the Christian atomist, Pierre Gassendi (1592-1655).

who also believes that consciousness depends upon the arrangement of the atoms, although they differ qualitatively. Lucretius says:

> . . . Heat and air and the hidden power of wind mingled create one nature together with that nimble force, which distributes among them from itself the beginning of motion, whence the motion that brings sensation first arises throughout the flesh.[48]

The particular collection of elements which make life and consciousness possible is called the self, according to Carvaka, beyond which there is no immaterial self or soul. The origin of consciousness or intelligence comes from the combination of elements as liquor's inebriating power comes from a mixture of ingredients.[49] "That intelligence, which is found to be embodied in the (various) modified forms consisting of the non-intelligent elements—(that) is produced in the same way in which red colour is produced from the combination of betel, areca nut and lime,"[50]

Not only is there no supernatural guidance or creation, there is no deity at all, for

> The fire is hot, the water cold, refreshing
> cool the breeze of morn;
> By whom came this variety? from their own
> nature was it born.[51]

It must be said, then, that "There is no heaven, no final liberation, nor any soul in another world. . . ."[52] The soul or the self *(ātman)* is born with the body, lives with the body, and dies with the body: it is completely a this-world manifestation, a natural phenomenon. The soul is not going to reap punishments or rewards in another life since it lives and dies in this one.[53]

48. Lucreti *De rerum natura* iii. 267-71.

49. Barua, *A History,* p. 291, attributed to Candrakīrti's *Commentary on the Mādhyamika-sūtra.*

50. This national chew of India and Pakistan (parts of Nepal and Tibet) goes into the mouth as a white powder in a green leaf and comes out again as blood-red juice.

51. Madhava, *Sarva,* p. 10.

52. *Ibid.*

53. The Vedantists, it is said, answered this as follows: ". . . thought, sen-

The arguments advanced by the Carvakas against the permanence of the soul and its transmigration from one body to another were: (1) If the soul moves from one body to another in a cycle of births and deaths, why does not an individual remember events that occurred in his previous existence?[54] This is comparable to the argument of Lucretius, as follows: "Again if the nature of the soul is immortal and makes its way into our body at the time of birth, why are we unable to remember besides the time already gone, and why do we retain no traces of past action?[55] (2) If the soul is reborn into another body why is it that it never returns in such a way as to be observed?

> If he who departs from the body goes to another world,
> How is it that he comes not back again, restless for
> love of his kindred?[56]

Lucretius has no argument quite like this, but perhaps the one closest to it runs as follows:

> Again, why is the understanding and judgment of the mind never begotten in head or feet or hands, but is fixed for all men in one abode in a quarter determined, except that places determined are assigned to each thing for its birth, and in which each several thing can abide when it is created; yes and it must have its manifold parts so arranged that never can the order of its limbs be seen reversed?[57]

(3) It is absurd, say the Carvakas, to believe in rebirth as is shown by so-called believers themselves, since they do not really act as if they believed.

> If a beast slain in the Jyotishṭoma rite
> will itself go to heaven,

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sation, and other properties of soul or consciousness cease at the moment of death, while the body yet remains; and cannot therefore be properties of the corporeal frame, for they have ceased before the frame is dissolved" (T. H. Colebrooke, *Miscellaneous Essays* [London: Trubner and Co., 1873], I, 429). See also Surendranath Dasgupta, *A History,* I, 362.

54. Surendranath Dasgupta, *A History,* III, 540.
55. Lucreti *De rerum natura* iii. 670-77.
56. Madhava, *Sarva,* p. 10.
57. Lucreti *De rerum natura* iii. 615-21.

> Why then does not the sacrificer forthwith
> offer his own father?[58]

And furthermore, *"If an oblation eaten here by one (really) passes into the body of another, then let a sraddha*[59] *be offered to a man* who is travelling abroad; he need not eat upon his journey."[60] No argument comparable to this is to be found in Lucretius. Carvaka here questions the sincerity of people who profess to believe that some are reborn and can have food sent to them by magic to an unseen world, yet who do not also believe this is possible to do in the perceived world. A man once dead remains so in every particular. "All these ceremonies for the dead,—there is no other fruit . . ."[61] than that which the Brahmans have plucked as a means of livelihood.[62] "Men are intent upon oblations to their progenitors and to the gods: but see what a destruction of food! for what can a dead man eat?"[63]

Further Carvaka arguments against the permanence of the soul are: (4) No consciousness belonging to one body and one series of events can be the cause of a series or a consciousness belonging to another body.[64] This is similar to Lucretius' argument already cited above that the soul must be localized. (5) There is no consciousness in early fetal life carried over from a previous existence, for in the fetal stage the sense organs are not properly developed, and there is no consciousness apart from their proper development.[65] Lucretius holds, in a similar vein, that, "the mind (soul) is begotten along with the body and grows up together with it and becomes old along with it."[66] The last Carvaka argument, and perhaps strongest of all, is: (6) No one has ever seen the transfer of conscious-

58. Madhava, *Sarva,* p. 10.

59. A hymn to Faith. See John Dowson, *A Classical Dictionary of Hindu Mythology and Religion, Geography, History, and Literature* (6th ed.; London: Kegan Paul, Trench, Trubner and Co., 1928), p. 304.

60. Muir, "Verses from the Sarva," pp. 303 f.

61. Madhava, *Sarva,* p. 10.

62. Muir, "Verses from the Sarva," pp. 303 f.

63. Madhava, *Sarva,* p. 10.

64. Kamalaśīla's *Pañjikā,* verse 521, cited by Surendranath Dasgupta, *A History,* III, 540.

65. *Ibid.*

66. Lucreti *De rerum natura* iii. 445-49.

ness from one body to another. Again, there is no Lucretian argument comparable to this, but Lucretius does have other arguments which depend closely upon his atomic theory. These are, briefly, that the soul perishes quickly when withdrawn from the body[67] and that the soul is subject to cares, grief, and fear just as the body is subject to disease and pain.[68]

In reply to the Buddhist objection that consciousness must have a cause in the body other than the body itself, since mental states are caused by previous mental states, Carvaka answers that the first manifestation of consciousness is produced by the body, although it must be admitted that later moments of consciousness may be caused partly by previous ones during a lifetime in one body.[69] The idealistic Buddhists believed that consciousness is a series of momentary instances, and that, although the individual consciousnesses are being momentarily destroyed, yet the series continues. States of consciousness are independent of sense objects and sense organs, being produced by various states of consciousness. Hence it is inconceivable that the series should be affected by the body and may therefore stretch indefinitely into the past or into the future.

The Jains believe in a permanent, eternal soul, not the product of matter, for it is not limited by time or space, as is attested to by immediate self-consciousness. There is no record of Carvaka attempting to refute this view, but it is not difficult to guess what its answer would have been. Perhaps the following would be a fair account of the answer: (1) on the basis of sense perception it is impossible to call the soul, or self, or consciousness, permanent or eternal, for as we have seen, it is born with the body and disappears with the body; (2) as for its being beyond the call of space and time, this is absurd since it resides within the body limited by time and space; and, finally, (3) our immediate self-consciousness gives us a different report from the Jains, to the effect that the soul is impermanent, temporal, and corporeal.[70]

67. *Ibid.*, iii. 438 f.

68. *Ibid.*, iii. 455-59.

69. According to the Kambalāśvatara, cited by Surendranath Dasgupta, *A History,* III, 540 f.

70. R. Mahadevan, "The Conception of Personality in Indian Materialism," *The Philosphical Quarterly* (Calcutta), Vol. XIV (October, 1938).

No other problem appears to have occupied the philosophers of these times as much as the nature of the soul. This has led Barua to observe that for them, as for the Greek Sophists, anthropological questions were most vital.[71] That investigation of the soul bore heavily on all discussion is quite obvious from the literature available. The Carvakas had less to say about it than their contemporaries, the Buddhists and Jains, although its status bore heavily on their discussion of knowledge and ethics. It is unfortunate that we have no material relative to other metaphysical opinions of the Carvakas, but this lamentable fact must be admitted. We shall therefore turn to a discussion of their ethical theory to see whether they did indeed sweep "the world clean of all its values" as has been suggested by one eminent authority.[72]

Carvaka Ethics

Carvaka ethical theory, as we might expect, is naturalistic and, of all Greek ethics, most like that of Aristippus, founder of the Cyrenaic school. Whereas Carvaka like Lucretius is opposed to the popular superstition that raises fear in the minds of men, it makes no appeal to disregard the terrors of death as Lucretius so eloquently did.[73] That this would have been quite unlikely will be realized when we consider the aim of the individual following orthodox teaching in India. The Indian does not fear death so much as rebirth in this same world. The anxiety associated with death, then, has never been a serious problem for the reflective Indian.

Having rejected the teachings of the Vedas and Upanishads, and with them the notions of deity, afterlife, heaven, and hell, Carvaka attempts to develop its ethics on the basis of what lay closest to hand, namely, the individual and his desires. What is it that the individual craves? He naturally craves whatever gives him the most pleasure and the least pain. But if there must be a choice between the most pleasure and the

71. Barua, *A History,* pp. 41-44.

72. Radhakrishnan, *Indian Philosophy,* I, 281.

73. Beginning with the famous line: "Death, then, is naught to us . . ." (Lucreti *De rerum natura* iii. 830 f.).

least pain, as opposed to Epicurus, the Carvakas hold that one should by all means get the most pleasure.

> The pleasure which arises to men from contact
> with sensible objects,
> Is to be relinquished as accompanied by pain,—
> such is the reasoning of fools;
> The berries of paddy, rich with the finest
> white grains,
> What man, seeking his true interest, would fling
> away because covered with husk and dust.[74]

Probably no other school in the history of philosophy endorsed the seeking of pleasure and enjoyment so unqualifiedly, with one possible exception: the hedonism attributed to the sentimentalist Neo-Taoist, Kuan Yi-wu, who is quoted as saying to another statesman of the state of Ch'i in ancient China:

> Allow the ear to hear anything that it likes to hear. Allow the eye to see anything it likes to see. Allow the nose to smell whatever it likes to smell. Allow the mouth to say whatever it likes to say. Allow the body to enjoy whatever it likes to enjoy. Allow the mind to do whatever it likes to do.
>
> . . . prohibition of the hearing of music is called obstruction to the ear . . . prohibition of the seeing of beauty is called obstruction to sight . . . prohibition of perfume is called obstruction to the smell.
>
> . . . these obstructions are the main causes of the vexations of life. To get rid of these causes and enjoy oneself until death, for a day, a month, a year—this is what I call cultivating life.[75]

Perhaps the so-called "flippancy"[76] of the Carvakas really indicates considerable restraint and gravity in comparison with "Yang Chu's Garden of Pleasure."[77]

Even the Cyrenaics thought that education and intelligence

74. Madhava, *Sarva*, p. 4.
75. Lieh-tzu, chap. vii, cited by Fung Yu Lan, *A Short History of Chinese Philosophy*, ed. Derk Bodde (New York: Macmillan Co., 1948), p. 234.
76. Sures Chandra Chakravarti, *The Philosophy of the Upanishads* (Calcutta: Calcutta University Press, 1935), p. 58.
77. The title of Anton Forke's translation of the Lieh-tzu, chap. vii, Fung, *A Short History*, p. 232.

should be the guides to proper enjoyment, but of this we hear not a word from the Carvakas. It is taken for granted by them that only an intelligent man would be persuaded to their point of view, well summarized in the lines:

> While life is yours, live joyously;
> None can escape Death's searching eye:
> When once this frame of ours they burn,
> How shall it e'er again return?[78]

The Carvakas make no qualitative distinction among pleasures so far as we can tell. Whatever pleasure seems close at hand will do quite well. Since all recorded mention of pleasures appears to be of a sensuous, if not sensual, kind, it would appear that such distinction as pleasures of the mind versus pleasures of the body are not considered to be of great moment.[79]

> The enjoyment of *svarga* consists in partaking of sweet food here, in enjoying the company of damsels of sixteen years of age, and also in enjoying the pleasures that are derivable from the use of fine clothes, sweet scents, flower garlands, sandal, and such other things (of delicious luxury).[80]

The pleasures of the *Decameron* and of Pantagruel are not to be despised but solicited: "Chastity and other such (cunning) conventions have been invented by clever weaklings."[81] And yet it is clear that this seeking after pleasure is not held to lead to effeminacy or grave disaster, for evidently the Carvakas think what is commonly regarded as *practicality* to be a factor in achieving pleasure. They maintain that "By adopting only those means which are seen (to be practical) such as agriculture, the tending of cattle, trade, politics and administration, etc. a wise man should always (endeavour to) enjoy pleasures (here) in this world.[82] This passage appears to say that the Carvakas favor activities which lead to what they consider to be real values: to pleasures in this world, as opposed

78. Rangacharya, *Sankaracarya's*, p. 6.
79. *Ibid.* See also R. Hamadevan, "The Conception of Personality," p. 227.
80. Rangacharya, *Sankaracarya's*, p. 6.
81. *Ibid.*
82. *Ibid.*

to priestly activities which purport to gain us values in the next. Ritual, the raising of temples, and the smearing of one's self with ashes are poor substitutes for the practical means of gaining enjoyment. Those who earn their livelihood by means of ritual are stupid and lacking in energy. There is a passage in Hume with which Carvaka would have wholeheartedly agreed in this connection.

> So long as we confine our speculations to trade, or morals, or politics, or criticism, we make appeals, every moment, to common sense and experience, which strengthen our philosophical conclusions. . . . But in theological reasonings, we have not this advantage; while at the same time we are employed upon objects, which, we must be sensible, are too large for our grasp, and of all others require most to be familiarised to our apprehension.[83]

The Carvakas believe in forestalling immediate pleasures in order to gain greater ones in the future. It is practical to engage in activities today that will give pleasure tomorrow. These activities, agriculture and trade particularly, require putting off some immediate gains for greater future ones. Against this interpretation, is that found in *Kāmasūtra,* to the effect that "it is better to have a pigeon today than a peacock tomorrow; a piece of copper that one gives is worth more than a piece of gold that one promises."[84]

Virtue, according to the Carvaka outlook, consists in living in such a way as to guarantee the maximum of pleasure and the minimum of pain. We cannot agree with Radhakrishnan who says of Carvaka: "There was a distrust of everything good, high, pure and compassionate."[85] He may be correct with regard to "compassionate" and one need not quarrel with the rest if he had explicitly stated what we think he meant, namely: "There was a distrust of everything traditionally regarded good, high, pure and compassionate." It may be said from the available material that Carvaka holds *truth, integrity, con-*

83. David Hume, *Hume's Dialogues Concerning Natural Religion,* ed. N. K. Smith (Oxford: Clarendon Press, 1935), Pt. I.

84. E. Lamairesse, (trans.), *Le Kama Soutra (De Vatsyayana). Règles de l'amour* (Paris: Carre, 1891), i. 2. In the German edition of Ferdinand Leiter and Hans H. Thal (eds.), *Liebe im Orient. Das Kamasutram des Vatsyayana* (Leipzig: Verlage für Sexualwissenschaft Schneider and Co., 1929), ii. 2.

85. Radhakrishnan, *Indian Philosophy,* I, 281.

sistency, and *freedom of thought* in the highest esteem. This is aside from the question of whether *we* regard these things as *noble* or *ignoble*.

That they regarded *truth, integrity,* and *consistency* highly commendable follows from their analysis of knowledge. Since the truth is unlikely to be found in the sacred scriptures, it must be found elsewhere, namely, in perceptual assertions. Once having granted that truth depends upon direct perception, the Carvakas reject as untrue what is known by inference and induction, thus maintaining consistency. This may well have been a foolish consistency for it raised a hobgoblin of induction. Integrity consists in following the dictates of sense-knowledge despite the threats of a powerful priesthood following the authority of *sruti*. Perhaps this integrity was greater than that of Kapila, the Samkhya philosopher, of whom it is said:

> Some hold that it was a stroke of policy on the part of Kapila not to have questioned the authority of the Vedas, lest the Sankhya philosophy, on account of its atheism, may be looked upon as an unorthodox system, but the Charvakas, not only, like the Sankhya philosophers, said that there was no room for God, but openly flouted the authority of the Vedas.[86]

It is evident that the Carvakas esteemed freedom of thought, since it was they who most exercised it in their time.

The role of religion in the ethical life is a detrimental one, according to Carvaka. Religion is perpetrated by knaves to get a livelihood from fools. Sacred scripture is a scandalous mishmash of contradiction reconciled by a tricky and conniving group of commentators. Bathing in the Ganges for moral purification, image and stone worship are as ridiculous as the rites for the dead. What the priests call "sins" and "virtues" are words invented to frighten people into doing certain things advantageous to the priests. As we have already seen, the Carvakas reject deity because it is unperceived; afterlife because the soul is mortal. Hence, it would follow that experts in the knowledge of these things should be considered either stupid or dishonest.

86. Chakravarti, *The Philosophy*, p. 58.

Little is known of Carvaka social ethics. It is not clear what is meant by the line attributed to the Carvakas: "Nor do the actions of the four castes, orders, etc., produce any real effect"[87] except that they evidently did not regard the caste system or the ascetic orders with any respect. They could not regard the Brahmans as spiritual and intellectual leaders when these purported to get their authority from the *sruti,* nor were they likely to believe that a man's caste was dependent upon karma and hence that the lower castes were working out former sins in this life. It may also be said that they regarded unproductive employment with hostility, although they seem to have had no quarrel with kingship, since they believed that the king was the supreme lord on earth.[88] Anything beyond this would be an inadmissible conjecture.

Summary

Carvaka is seen to fit unqualifiedly in the highest level of naturalism as that level has been described above.[89] Its epistemological outlook is empirical, its metaphysics materialistic, and its ethics hedonistic.

With the statement attributed to Democritus' *The Canon,* Carvaka would be in complete agreement. According to Democritus, "There are two sorts of knowleuge, one genuine, one bastard (or 'obscure'). To the former belong all the following: sight, hearing, smell, taste, touch."[90] Carvaka would also agree with his view that "Pleasure and absence of pleasure are the criteria of what is profitable and what is not."[91] One of the few statements attributed to Democritus concerning religion would certainly meet with Carvaka approval: "Men ask in their prayers for health from the gods, but do not know that the power to attain this lies in themselves; and by doing the opposite

87. Madhava, *Sarva,* p. 10.

88. Stcherbatsky claims that they "preached a businesslike machiavellism in politics" *(Buddhist Logic,* I, 16). We have been unable to find evidence of this unless one were to interpret this in Veblenian fashion.

89. See "Introduction," p. 9.

90. Democritus, Fragment 11, in Hermann Diels, *Die Fragmente der Vorsokratiker,* ed. Walther Kranz (7th ed.; Berlin: Wiedmannsche Verlagsbuchhandlung, 1954), II, 140.

91. Democritus, Fragment 4, *ibid.,* p. 134.

through lack of control, they themselves become the betrayers of their own health to their desires."[92]

Carvaka (1) approves the empirical method, indeed, allows no other; (2) rejects the nonnatural; and (3) in so far as it is concerned with control of the natural world believes this to be possible only by means clearly nonspiritual. It thus fulfills the necessary requirements to be designated a naturalistic system of the highest degree.

92. Democritus, Fragment 234, *ibid.*, p. 192.

5. NATURALISTIC ELEMENTS IN JAINISM

The Beginning of Jainism

Jainism was allegedly founded by Mahavira (599-527 B.C.), a contemporary of the Buddha, who also was born and grew up in northern India. Mahavira was probably a member of the Kshatriya caste.[1] Like the Buddha, he became a wandering ascetic but, unlike the Buddha, never found the extreme ascetic life uncongenial.[2] Former attempts to show that Jainism is merely a kind of Buddhism have failed. The evidence now appears overwhelming that the Jains developed independently of, although contemporaneously with, the Buddhists. Evidence for this is to be found in the Buddhist Pali Canon where references are made to Jaina metaphysics and ethics.[3] But the fundamentals of Jainism, it is said, were taught long before Mahavira. One Jaina author states, for example, that Jainism was founded by Pārśva (d. 722 B.C.), who was known to his contemporaries as *purisādāṇiya,* or "the people's favorite."

1. *Gaina Sūtras,* trans. from Prakrit by Hermann Jacobi (Sacred Books of the East, Vol. X [New York: Charles Scribner's Sons, 1901]), p. xiii.

2. *Ibid.*, p. xvii.

3. Jagmander Lal Jaini, *Outlines of Jainism* (Cambridge, Eng.: Cambridge University Press, 1940), pp. xxx f. See also *Anguttara-Nikāya* iii. 74, in F. L. Woodward (trans.), *The Book of Gradual Sayings (Anguttara-nikaya) of More-numbered Suttas* (Pali Text Society Translation Series, Vol. XXII [London: Oxford University Press, 1932]), Vol. I.

It was only after Mahavira's enlightenment that these teachings were reduced to writing.[4]

The Jains are divided into two sects, the Śvetāmbaras (white-robed) and the Digambaras (sky-robed, hence naked). This division, which dates back to A.D. 80, is not comparable to the division among the Buddhists between Theravada and Mahayana, for the philosophical implications of the Jaina split are negligible. Later schisms in Jainism, such as the growth of the Lunkas *(ca.* 1452), who denounced idolatry, are also not important from a philosophical point of view.[5]

Jainism, like Buddhism, developed out of Brahmanical tradition yet differed from this tradition in rejecting the sacrificial creed which sought to bring about happiness either in this or in the next world. Both Jainism and Buddhism rejected ordinary worldly happiness here, attempting to substitute for it an unchangeable state of infinite happiness in moksha or nirvana. In rejecting the Vedic sacrificial creed it was necessary for the Jains and Buddhists to develop lines of ethical theory independent of the creed. And this forced them also to develop new lines of thought in epistemology and metaphysics. Jainism, along with Buddhism, rejected the Vedic revelations, the most important of which were concerned with right conduct. *Right knowledge,* for the Vedicists, meant knowledge of the Vedic injunctions concerning how sacrifices were to be performed; *right conduct* meant performing the necessary sacrifices to attain temporary happiness; *right karma* meant the acts of sacrifice and their immediate fruits.[6] These Vedic interpretations were essentially rejected by both Jainism and Buddhism. But Sastri warns:

> It is, however, easy to exaggerate the differences between Brahman-

4. M. V. Govindaswamy in "Foreword" to Mohan Lal Mehta, *Jaina Psychology* (Amritsar: Sohanal Jaindharma Pracharak Samiti, 1955), p. vii. See Sarat Chandra Ghosal (ed. and trans.), *Nemichandra Siddhānta-Chakravartī. Dravya-Saṃgraha* (The Sacred Books of the Jainas [Bibliotheca Jainica], Vol. I [Arrah: Central Jain Publishing House, 1917]), p. 3.

5. Jaini, *Outlines,* p. xxxix, fn. 1. An attempt at unity of the Jain sects was made after A.D. 80, but the migration southward under Bhadrabāhu continued. See K. A. Nilakanta Sastri (ed.), *A Comprehensive History of India* (Calcutta: Orient Longmans Private, 1957), II, 357-59.

6. Surendranath Dasgupta, *A History of Indian Philosophy* (5 vols.; Cambridge, Eng.: Cambridge University Press, 1922-55), I, 208 f.

ism and the new creeds. There was indeed no absolute or violent breach of thought between the old order and the new, and the differences among the rival creeds were fought out peacefully in public debates without any resort to force or arms.[7]

Jainism and Buddhism developed along such closely parallel lines that it was believed for some time that Jainism was a sect of Buddhism. Even the biographies of the Buddha, on the one hand, and Mahavira, on the other, were so strikingly parallel that stories concerning the life of one were frequently attributed to the other.[8] Even though the Pali Canon frequently records instances of Jaina opinions, there are no early records in Jaina literature of the Buddhists. The Jains, evidently, were not so concerned about the rivalry of the "greedy and luxury-loving" Buddhists as they were about the dangerous rivalry of Gosala's creed, which more closely approximated the position of Mahavira.[9] Jainism never enlisted the sympathies of so powerful a monarch as Asoka, although one legend recounts that after Asoka in the last years of his reign wasted the revenues of the empire by huge gifts to Buddhist monks and monasteries, he was replaced, upon the demands of his ministers, by his grandson Samprati, who is said to have been converted to Jainism.[10]

The Jaina Canon, although composed orally sometime before the Christian era, was not reduced to writing, in Ardha-Māgadhī, one of the Prakrit dialects, until the fifth century A.D. When Sanskrit had its general revival in India, however, the Jains wrote in that language.

Theory of Knowledge

The Jains begin their analysis of the processes of knowl-

7. K. A. Nilakanta Sastri, *History of India* (2 vols.; Madras: S. Visvanathan, 1950), I, 4. But see also Abbé J. A. Dubois, *Hindu Manners, Customs and Ceremonies* (3rd ed.; Oxford: Clarendon Press, 1943), p. 107, who claims that bloody struggle between Brahman and Jain occurred.

8. K. A. N. Sastri, *History*, I, 45.

9. *Ibid.*, pp. 46 f. See also Vincent A. Smith, *The Early History of India* (Oxford: Clarendon Press, 1924), pp. 202 f.

10. K. A. N. Sastri, *History*, I, 70-71. For a general account of this period of Jainism, see Hiralal Jain, "Jainism: Its History, Philosophy and Religion," *The Cultural Heritage of India* (Calcutta: Belur Math, [1937]).

edge by dividing perception into two kinds. There are (1) empirical perception *(saṃvyavahārika pratyakṣa)* and (2) transcendent perception *(pāramārthika pratyakṣa)*. Empirical perception is of two kinds: (1a) sensuous perception *(indriyanibandhana)* derived from the external sense organs and (1b) nonsensuous perception *(anindriyanibandhana)* derived from the mind. Transcendent perception is derived from the self *(jīva)* alone, not from the sense organs or from the mind.[11] This "Perfect knowledge . . . is . . . directly known by the soul itself, without any external help."[12]

Our perception reveals the external objects to us just as those objects are, with their characteristics of form, color, and the like. Objects of perception are not mere percepts but are actually independently existing. The process of sense perception is such that knowledge arises in the soul, on the basis of reception by the five senses. "Knowledge arises in the soul from within it as if by removing a veil which had been covering it before."[13] The function of the five senses is to assist in removing the veil. In ordinary perception the senses provide stimulation as if by raising the curtain on knowledge already on the stage. The physical sense of the organs, such as the eye, is to be distinguished from the power of the soul (sometimes "the self"), which is "sense" of a higher order. "The sense organs are like windows for the soul to look out."[14]

The sense organs are of two types: the objective senses, including the physical sense organs; and the subjective senses, which are the invisible faculties of the soul. The subjective senses, in turn, are also of two kinds: those which are responsible for the conscious attention of the soul directed toward the physical senses; and those which perform in such a way as partially to destroy knowledge-veiling karma.[15] The soul itself pervades the entire body, but its functions, as already indicated, are localized in the knowing process. All the

11. Jadunath Sinha, *Indian Psychology* (London: Kegan Paul, Trench, Trubner and Co., 1934), p. 361.

12. J. L. Jaini (ed. and trans.), *Sri Umasvami* [Umāsvātī] *Acharya-Tattvarthadhigama Sutra* (The Sacred Books of the Jainas [Bibliotheca Jainica], Vol. II [Arrah: Central-Jaina Publishing House, 1920]), p. 23.

13. Surendranath Dasgupta, *A History*, I, 184.

14. *Ibid.*, p. 185.

15. Jaini, [Umasvati] i. 18.

physical organs, with the exception of the eye, come in direct contact with their objects. The eye, with the help of light, is able to apprehend objects at a distance. The direct contact of the remaining four organs is either gross or subtle. Touch and taste come in contact with gross particles; smell and hearing come in contact with subtle particles (atoms). The Jaina belief that in smelling we are in contact with minute particles of the object smelled, reminds us of the idols or peelings of Lucretius.

> . . . All smell, smoke, heat, and other like things stream forth from things, scattering loosely, because while they arise and come forth from deep within, they are torn in their winding course, nor are there straight outlets to their paths, whereby they may hasten to issue all in one mass.[16]

A unique feature of Jaina epistemology, among Indian systems, is the nonnaturalistic belief that before we ever see any object by means of the five physical senses we have the knowledge of it already in the soul. Perception is merely the necessary condition to remove the veil from the knowledge we already innately possess. To illustrate this, let us assume that we are looking at a chair. The knowledge of the chair is already in the soul, but the actual physical perceiving of it somehow removes the veil covering this knowledge.[17]

The removal of the veil, however, depends not only upon the sense organs coming in contact with an object, but also upon the karma of the individual. And ultimately, if the individual had no karma he would know the object without contact. The past ethical decisions of the individual will have direct relevance to the operations of the soul's veil. The senses are a necessary condition to some cognitions of the soul, but they are not a sufficient condition, except as one has attained to perfect knowledge *(kevala-jñāna)* in the state of moksha (moksha in Jainism is roughly equivalent to nirvana in Buddhism).

16. Titi Cari Lucreti *De rerum natura libri sex,* ed. and trans. Cyril Bailey (Oxford: Clarendon Press, 1947), iv. 92-99; all references hereafter are to this edition.

17. H. M. Bhattacharyya, "The Jaina Theory of Pratyabhijna," *Philosophical Quarterly* (Amalner), XIV (January, 1939), 1.

Certainly this feature of Jaina epistemology is as nonnaturalistic as Platonism.

The finite self *(jiva),* having eliminated all kạrmic matter, attains to the omniscience it potentially has. Omniscience is not derived from authority, scripture, the sense organs, or inference. It is a pure intuition of the whole world, produced by the complete eradication of karma particles. It is a distinct perception of all the sensible and supersensible objects of the world on the complete destruction of karma.[18]

This pure intuition of everything-that-is[19] in a single instant is possible because the self is free from the bondage of physical existence. Every self then, from the standpoint of Jainism, is potentially omniscient; it becomes omniscient in fact when all that is physical has been removed from it, namely, karmic particles.[20] When one has empirical knowledge, the soul knows through the medium of something else, the senses, but in immediate knowledge *(pāramārthika)* the soul's consciousness becomes immediately related to objects. This it achieves by removal of the karma veil. "It follows then that the soul being conceived as *swaprakāśa* [svapvakāśa] or self-luminous, knowledge which is of the essence of the soul is also self-luminous, and that knowledge is an essential . . . quality (of the soul). . . ."[21] It must be clearly understood that "knowledge is not mere knowing but the *self as knowing.*"[22] Another way of expressing this is by saying that knowledge is "the self-functioning of the self. . . ."[23]

This doctrine of omniscience, if it reminds us of anything in Western philosophy, is similar to the Pythagorean-Platonic doctrine of reminiscence. Socrates says, in expounding a kind of omniscience through reminiscence:

> The soul then, as being immortal, and having been born again many times, and having seen all things that there are, whether in this world or in the world below, has knowledge of them all . . . for all nature

18. Jadunath Sinha, *Indian Psychology,* p. 366.
19. The "universe" is "everything that is"; *Lokakasa* is "world of nature."
20. Prabhācandra, *Prameyakamalamārtaṇḍa* (Bombay, 1912), pp. 67 f.
21. H. M. Bhattacharyya, "The Jaina Theory of Knowledge and Error," *Philosophical Quarterly* (Calcutta), XIV (July, 1938), 122.
22. *Ibid.*, p. 123.
23. *Ibid.*

is akin, and the soul has learned all things; there is no difficulty in her eliciting . . . all out of a single recollection, if a man is strenuous and does not faint. . . .[24]

There are, according to Jainism, five kinds of knowledge, or "right knowledge," since "right knowledge" is contrasted with "false knowledge." These five kinds are:

1. Knowledge acquired directly by the sense organs or by the mind (acquaintance). This is known *now* about the *now*.

2. Knowledge acquired indirectly by the sense organs or by the mind (description or study knowledge). This is known about the *past* and *distant present, now*.

3. Knowledge about the past as possessed only by celestial or infernal souls and certain ascetics who have acquired it by austerities.

4. Knowledge of the thoughts or feelings of others, possessed only by Saṃyamins, that is, masters of self-control who have restrained the body, mind, and speech.

5. Knowledge of a pure and perfect type, possessed only by those who have eliminated all karma and hence are omniscient.[25]

There is not only true opinion but false opinion, according to Jainism. False opinion is possible in the first three types of knowledge (1, 2, and 3) above. There may be false opinion in (1) acquaintance, (2) description, and (3) knowledge of the past known by ascetics, for their austerities are not a perfect guarantee against error.[26] Mind knowledge (4) and omniscience (5) cannot be in error, however, for neither of these exists unless a state of freedom-from-error is present. Mind knowledge and omniscience are errorless, hence the statement, "Mind knowledge and omniscient knowledge contain no possibility of error," is analytic.

Transcendent perception is dependent on the self; it is a process by which the impediments to perfect knowledge (already in the self, but veiled) are removed. It may be of two kinds: (1) imperfect *(vikala)* and (2) perfect *(sakala)*. The imperfect may be subdivided into the (1a) clairvoyant perception

24. Plato, "Meno," *The Dialogues of Plato,* trans. Benjamin Jowett, (New York: Random House, 1937), Vol. I, sec. 81, p. 360.
25. Jaini, *Outlines*, pp. 59-60.
26. Jaini, [Umasvati], pp. 2-3.

of objects distant in time and space, and (1b) telepathic knowledge of thoughts held by other minds. Perfect knowledge, called omniscience *(kevala-jñāna),* is the complete knowledge of all objects and thoughts in the realm of everything-that-is, without any obstruction of karmic matter. Omniscience is a quality of human minds only, since there is no God in the Jaina system[27] and angels and demons do not seem to possess it. The possibility of omniscience follows from the potential perfect knowledge in the individual self *(jiva)* obstructed by karmic matter. When the obstruction is completely removed, the mind sees all and knows all.[28]

Omniscience cannot depend upon knowledge from the sense organs, which is inherently imperfect. This belief of the Jains is in opposition to the theory of Nyāya which holds that the external sense organs, aided by merit *(dharma)* accruing through meditation, can have knowledge of the past, present, and future. It is also in opposition to the theory held by the same school that one can have knowledge of the past, present, and future by means of a second situation, where merit, gained through yoga, accruing to the mind *(manas),* gives that internal organ superlative knowledge.

The Jains believe that, in order to be true, a proposition (judgment) must correspond to the object or process talked about. "Both logically and psychologically the validity of knowledge depends upon outward correspondence with facts."[29] The objective world exists as it appears to exist according to the certification of experience. The world does not generate knowledge of itself in us, for knowledge appears as a revelation of our own self *(jiva).* Yet what is revealed is either true of the

27. See section on Jaina metaphysics below.

28. Devasūri, *Pramāṇanayatattvālokālankāra* (Benares, 1911), ii. 4, 5, cited by Jadunath Sinha, *Indian Psychology,* p. 361.

29. Surendranath Dasgupta, *A History,* I, 188. Dasgupta wrote about "outward correspondence with facts" before Anglo-American analytic philosophy impressed much greater precision on philosophical language than had been known before. What he means, therefore, must now be translated: the correspondence of sentences with observed external, independent events. Mario Bunge recently has suggested that the subjectivist dictum "to be is to be perceived" is now changed to "to be is to be measured" *(Metascientific Queries* [American Lecture Series, ed. Marvin Farber, No. 341 (Springfield, Ill.: Charles C. Thomas, 1959)], p. 250). According to Jaini, [Umasvati] ii. 2: "Belief or conviction in things ascertained as they are, (is) right belief."

world or false. Error "arises when we confuse one thing with another."[30]

Sense knowledge is tested by correspondence. If what is produced in one's mind by the senses corresponds with the objective nonmental world, then the knowledge is true knowledge. Indirect knowledge also may be tested by correspondence: extrapolative mind knowledge is correct if it corresponds to the objective world, or could so correspond under proper conditions. Scriptural knowledge is true if the propositions one entertains correspond to those found in the sacred writings.

Omniscient knowledge evidently requires no test. Furthermore, since such knowledge includes past events that are not testable and future events testable only in the future, it would be quite impossible to verify such knowledge in any of the ordinary prescribed ways. "But mind-knowing cannot be false. We cannot have it, unless we can have knowledge of the exact thought or feeling in another's mind. Full or perfect knowledge obviously cannot be false."[31] If there is any test of mind knowledge or omniscience, it must be of this type: "Is this proposition based on mind knowledge?" If the one holding the proposition just stated says "Yes!" then no further discussion is possible unless there is strong evidence that he is lying when he says "Yes!" Mind-knowing and omniscience are considered to be self-evident and self-verifying.

It is possible to acquire false knowledge in three ways: by means of deception by the senses; by means of incomplete or erroneous studies; and by means of undetailed and unclear visions of what is remote in the past and future, in what is sometimes called "angelic knowledge." We can understand the Jaina view of false knowledge better, perhaps, if we briefly state the view concerning the doctrine of the five bodies.

The Jains consider the five bodies to be intimately related to the knowledge process. These bodies are, in order of their lightness and refinement, beginning with the most gross: physical, angelic, temporary, magnetic, and karmic. With the physical body one acquires sense knowledge, study knowledge, and remote knowledge (by means of austerities). The angelic

30. H. M. Bhattacharyya, "The Jaina Theory of Knowledge," p. 130.
31. Jaini, *Outlines*, p. 60.

body provides remote knowledge of the past and future. The temporary body *(āhāraka)*, which is unique and peculiar to Jainism, acts as a catalyst in removing doubt from the mind of a saint. The magnetic body provides knowledge of the thoughts and feelings of others. If a man's magnetic body provides knowledge of the thoughts and feelings of another, the bodies are in magnetic attunement and mutual response results. Karmic body provides knowledge negatively, for the less karmic body one contains, the more true knowledge one has.

> . . . On rare and urgent occasions, in consequence of the highly developed occult faculties of his soul, a spiritual man-like body emanates from his (the saint's) head and flashes across space to the feet of the master, where it solves the doubt; then it rushes back and re-enters the ascetic's head.[32]

This temporary body, then, plays a role similar to the diminution of karmic body, by removing obstructions to correct knowledge rather than by actually providing knowledge. Each of these bodies therefore exemplifies a stage in the path to the truest knowledge, or complete removal of the karmic veil. There may be true knowledge, so far as is possible, on each level, but ultimately the certain and true knowledge is attained upon removal of the various obstructing bodies, until omniscience is reached. A hierarchy of knowledge appears in Jainism, such that there may be correct knowledge on each level, but ultimately there is complete correctness only on the highest level.

From the point of view of omniscience, all knowledge of a lower order is inadequate and in a sense false, but, from the point of view of each level taken in turn, there may be a kind of correctness. If there is false knowledge at any particular level the falsity is the result of the kind of body which controls that level. The final aim of the Jain is pure knowledge.

While true knowledge depends upon correspondence[33] on the lower levels of cognition, it depends upon clear and distinct ideas on the highest. And Jaina claims to the contrary, it may plausibly be maintained that Jainism, in a sense, also holds that

32. *Ibid.*, p. 44.

33. Surendranath Dasgupta *(A History,* I, 183) refers also to the Jaina criterion of noncontradiction which is compatible with the Jains' holding the more fundamental (empirical) criteria to be clearness and distinctness.

clearness and distinctness are the criteria even on the lower levels of knowledge.

One might make a parallel with Descartes, for whom clearness and distinctness are the criteria of truth,[34] but perhaps a parallel with Spinoza would be more significant since the highest type of knowledge for Spinoza is attained by the removal of imagination, equivalent to karmic particles in Jainism. The highest knowledge for Spinoza is the eternal knowledge, the *scientia intuitiva,* or the knowledge of God as God knows Himself.[35] This knowledge would appear similar to the state of omniscience in Jainism where a man knows everything, past, present, and future, just as it really is. Is it possible that the parallel of the hindrances of the imagination for Spinoza with the karmic particles of Jainism may point to a generalization of wider scope in comparative philosophy, namely, that one of the roles played by karma in Indian philosophy resembles the role played by the *material* as opposed to the *formal* in European rationalism?

One other aspect of the Jaina theory of knowledge remains to be discussed. This is the theory of relative judgment or *syādvāda.*[36] The theory of relative judgment grows out of the belief that since we do have different kinds of knowledge, of both immediate and mediate types, about objects, these objects themselves show innumerable characters.[37] Omniscience allows its possessor to get immediate knowledge of all the innumerable characters of an object, but, generally, an object is seen from one particular point of view. This partial knowledge, and judgment based on such partial knowledge, is called *naya.*[38] Unawareness of this state of affairs leads to disagreement in belief and attitude. We forget that we have knowledge

34. Clearness and distinctness rest ultimately upon God for Descartes, which they could not do in Jainism. This is the common interpretation of Descartes, but there are others more critical of the "surface" import of the Meditations.

35. Leon Roth, *Spinoza, Descartes and Maimonides* (Oxford: Clarendon Press, 1924), pp. 120 f.

36. D. L. Gosvami (ed.), *Syādvādamañjarī [of Hemacandra]* (Benares: Caukhamba Sanskrit Book Depot, 1900), p. 9.

37. *Sad-darśana-samuccaya,* 55, cited by S. Chatterjee and D. M. Datta, *An Introduction to Indian Philosophy* (3rd ed.; Calcutta: Calcutta University Press, 1948), p. 91.

38. *Nyāyavatara,* 29, in *ibid.*

of an object in only one of its aspects and then attribute unconditional certainty to this perspective. As with Bertrand Russell, the Jains believe not only in perceived perspectives but in unperceived ones, but they differ in this respect that whereas Russell admits only perspectives, the Jains admit of independent objects which are sensed, and hence would reject his tacit neo-Kantianism. Objects exist apart from perspectives; they possess many aspects in themselves. The Jains hold that in order to remove disagreement based on an unawareness of certain perspectives, one should always qualify one's statements by some phrase such as, "in some respect *(syāt)* is this the case." One would then say about the elephant: "The elephant, in some respect, is like a pillar." It is also correct to say, with regard to the existence of objects such as a jug, that, "the jug exists in some respects," implying thereby that certain conditions are necessary for jug-existence. Jugs do not always exist under all conditions in all places.

The existence of the jug is determined both positively and negatively. We have seen what the Jains mean by the jug's positive determination *(syādasti)*. By its negative determination *(syānnāsti)* they mean that the jug is apprehended and defined by the negation of all other things in the world. "The jug is *here*" can be understood to entail that "the jug is not *there.*"

The introduction of negative determination also brings in a feature of Jaina epistemology that may remind us of the Buddha's "eel-wrigglers," for affirmations (positive and negative) are "true," are "not true," are "both true and untrue," and are thus "unspeakable," "inconceivable," and "indefinite" from various points of view. Three other possibilities present themselves:

> . . . (1) That in some sense it may be that the jug is, and (2) is yet unspeakable, or (3) that the jug is not and is unspeakable, or finally that the jug is, is not, and is unspeakable. Thus the Jains hold that no affirmation, or judgment, is absolute in its nature, each is true in its own limited sense only, and for each one of them any of the above seven alternatives (technically called *saptabhaṅgī)* holds good.[39]

39. Hemacandra, *Commentary on Syādvādamañjarī,* pp. 166 f., paraphrased by Dasgupta, *A History,* I, 180. Concerning Russell's neo-Kantianism, we now find that in his eighty-seventh year Russell has once more taken a new tack to avoid a foolish consistency. See his *My Philosophical Development* (New York: Simon and Schuster, Inc., 1959), p. 254.

The Jaina theory of perspective has enabled the adherents of this school to remain remarkably tolerant toward others. Against the view of "exclusive particularity," the Jains hold that other systems may have a claim to knowledge and truth. That they are consistent in this may be seen in their explicit belief that non-Jains may find salvation.

While the early Buddhists did philosophize and acquire knowledge, the function of knowledge was to lead one as quickly as possible to a state where knowledge was useless—to nirvana. The Jains agreed with the early Buddhists in maintaining the practical ethical function of knowledge. "They say that knowledge is not to be valued for its own sake."[40] Knowledge is important because it enables us to acquire what is good and avoid what is bad. This acquisition and avoidance must be understood to be strictly ethical, in contrast to the view of Carvaka where acquisition had to do with practical affairs of commerce and agriculture. The Carvaka view is that anything which leads to increased tangible fruits will lead also to a more enjoyable life. The final goal for the Carvakas and the Jains is bliss, but for the Jains this bliss is attained by the removal of the physical particles that cloud the soul.

The attitude of the Jain toward knowledge differs from the Buddhist in that the former relies heavily upon the given in knowledge as being what it appears to be in its naïve realistic sense. The Buddhist, because of his strong tendency to emphasize the process of events, is left with no permanence; the Jain, however, believing in the permanence of both objects and souls and having faith in what is substantially given in sense knowledge, holds that uncontradicted information is a faithful copy of the objects around us (as considered from a certain perspective). Skepticism of sense knowledge is not a hallmark of Jainism.

Jain epistemology is strongly nonnaturalistic in spite of its belief in correspondence at the lowest level of knowledge. The three highest levels of knowledge, which naturalism rejects, are essentially intuitive. At the highest level of intuitive knowledge is omniscience, a quality or attribute reserved exclusively for deity in Western philosophy. The most optimistic

40. Surendranath Dasgupta, *A History,* I, 182.

naturalist would not claim omniscience to be possible even in principle, although he might applaud the humanistic audacity of the Jain philosopher.

Metaphysics

The External World

Everything-that-is for the Jain (including what is generally held to be the maximum universe for Western supernaturalism) is divided into two realms. The world of *loka* (roughly the Western universe of supernaturalism) consists of three divisions: the upper *(urdha loka),* the middle *(madhya loka),* and the lower *(adho loka).* In the first division are celestial beings, in the second are men and other creatures, and in the third are the denizens of hell.[41]

Beyond the world of *loka* is an eternal, infinite, formless, inactive world perceptible only by omnisciences. This is the world of *aloka,* which contains one substance, *akasa* (roughly, "ether"). *Loka* and *aloka* are shortened forms of *lokākāśa* and *alokākāśa.*[42]

If one wishes to consider this division as an attempt to differentiate the natural from the nonnatural, one is hard put to know precisely what the division shows. We believe the following points to be important in this regard: (1) There is no basic division in Jainism between the celestial-nether world and the "natural" world of men and creatures; (2) there is a clearly defined nonnatural world perceptible by omniscient men in which nothing resides except *akasa;* (3) the final aim of men is not to reach the celestial only but to perceive the eternal and infinite.

> Meditate on the Siddha–the soul which is bereft of the bodies produced by eight kinds of Karma, which is the seer and knower of Loka and Aloka, which has the shape like a human being and which stays at the summit of the universe.[43]

41. Celestial and infernal creatures are mortal and have innate knowledge at birth which they exercise until death. See Jaini, [Umasvati] i. 21. The celestial creatures have sex, while the infernal are neuter. There are thirty-five classes of celestial beings, among which are the "Peripatatic," "Stellar," "Heavenly," and "Residential" *(ibid.,* iv. 1).

42. See S. C. Ghoshal, *Nemichandra,* pp. 58 f.

43. *Ibid.,* p. 51.

The Jain who has become perfect does not aim at *residing* in the eternal realm but only at *perceiving* it. He may perceive it when he has reached the summit of the universe, "Siddha Ksetra, the half-moon-shaped space,"[44] which is located in the celestial realm. One need scarcely emphasize the nonnatural character of this ultimate division of everything-that-is.

The universe, as contrasted with everything-that-is, is divided into two uncreated entities: consciousness, which is the enjoyer *(jiva),* and matter and extension, which are the enjoyed *(ajiva)*. These two entities cannot, however, be equated with the "I" and "not-I."[45]

Jiva is eternal consciousness, soul, or self;[46] *ajiva* is divided into two main classes: stuff with form or matter *(rupa)* and stuff without form or matter *(arupa)*. *Ajiva* without matter consists of (1) the principle of motion *(dharma);* (2) the principle of rest *(adharma);* (3) two kinds of space, one of which is occupied by the world of material things, *(lokakasa),* and the other which is absolute void *(alokakasa);* and finally, (4) the principle of time *(kāla)*.[47]

Motion (loosely, *dharma)* is coextensive with space *(lokakasa)* and hence, the Jains believe, has extension although it is incorporeal. Motion itself does not move, yet is essential to the movement of corporeal things, as water is essential to the movement of fish. According to S. C. Ghoshal: "The Jaina philosophers mean by Dharma a kind of ether, which is the fulcrum of motion. . . . Dharma does not make these move, but only assists them in their movement when they begin to move."[48] The principle of motion is the medium of movement without being the cause of movement. The principle of rest *(adharma)* plays the role to nonmotion that *dharma* plays to motion. Rest like motion is incorporeal.

Time is sometimes considered a quasi-substance upon which are strung the successive movements of the world. "It is a

44. Jaini, [Umasvati] i. 5.

45. S. Radhakrishnan, *Indian Philosophy* (2 vols.; London: George Allen and Unwin, 1948), I, 315.

46. *Jiva* has form through the bondage of karma. See S. C. Ghoshal, *Nemichandra,* p. 7.

47. *Ibid.*, p. 21.

48. *Ibid.*, p. 17.

process of persistence, an enduring from the past into the present."[49] Time has neither magnitude nor extension. Time may be either eternal *(kala)* or relative *(samaya),* with a beginning, an end, and temporal divisions. Relative time is dependent upon eternal time for its subsistence.[50]

Matter *(pudgala)* is whatever is perceived by the senses and includes the physical mind, karmas, and ordinary external objects. Matter is substance having the modifications of sound, union, fineness, grossness, shape, divisibility, darkness, image, luster, and heat.[51] It is uncreated and eternal, increasing or diminishing in volume without the addition or loss of particles as it assumes multifarious forms. Matter is the vehicle of all kinetic energy which is of two kinds: simple motion *(parispanda)* and development *(pariṇāma),* although some Indian commentators translate *parinama* as "evolution." The main divisions of matter are gross and subtle. That which is gross is perceptible by the senses, while that which is subtle is beyond the senses, being transformed into degrees of karma, hence becoming karmic particles.

According to a contemporary Indian metaphysician:

> The Jaina metaphysics is an out-and-out metaphysics of substance *(dravya),* for even what we generally regard as unsubstantial, e.g. time *(kāla),* is a substance for them. Substance is every entity to which we can assign an attribute, and time therefore comes in this class.[52]

The structure of the physical universe is atomic in nature. All physical objects, made up of gross or subtle atoms, are called *paramanus.* The individual atom *(aṇu)* is infinitesimal, possessed of weight, eternal, ultimate, uncreated, indestructible, and formless. Sometimes it is held to have an inherent propulsion such that it can traverse the whole universe in a moment.[53] Though the individual atom is formless itself, it

49. Radhakrishnan, *Indian Philosophy,* I, 316.
50. S. C. Ghoshal, *Nemichandra,* p. 21.
51. *Ibid.,* p. 16.
52. P. T. Raju, "Metaphysical Theories in Indian Philosophy," *Essays in East-West Philosophy,* ed. C. A. Moore (Honolulu: University of Hawaii Press, 1951), p. 215.
53. Radhakrishnan, *Indian Philosophy,* I, 319.

is the basis of form, moving upward if light and downward if heavy, and occupying one point of space *(paradeśa)*. Many subtle atoms may occupy the space required for one gross atom. Taste, color, tactility, and odor are also qualities of the atoms but are not so primary as the qualities of eternality and indestructibility.

Both primary and secondary qualities are properties of the individual atoms themselves, according to the Jains, in distinction to the outlook of Lucretius who holds that primary qualities inhere in the individual atoms, whereas secondary qualities depend upon aggregations.[54] Atoms may assume new qualities, on the Jaina view, and lose qualities once possessed, but, so far as is known, this applies to the acquisition and loss of what are called secondary qualities in Western parlance.[55]

> Every atom thus evolved possesses an infra-sensible (or potential) taste, smell and colour (one kind of each), and two infra-sensible tactile qualities, e.g. a certain degree of roughness or smoothness (or dryness and moistness?) and of heat and cold. Earth-atoms, Ap-atoms, etc., are but differentiations of the original homogeneous Pudgalas. The tactile qualities appear first, but qualities of taste, smell, and colour are involved in the possession of tactile qualities.
>
> An aggregate (Skandha), whether binary, tertiary, or of a higher order, possesses (in addition to touch, taste, smell, and colour) the following physical characteristics: (1) sound, (2) atomic linking, or mutual attraction and repulsion of átoms, (3) dimensions, small or great, (4) figure, (5) divisibility, (6) opacity and casting of shadow, and (7) radiant heat-and-light.[56]

In comparing the atomic theory of the Jains with that of Lucretius we have already seen that the Jains hold that both primary and secondary qualities inhere in the individual atoms, whereas Lucretius believes that only the primary qualities inhere, while the secondary qualities depend upon atomic com-

54. According to Lucretius: "For the bodies of matter [atoms] have no colour at all, neither like things nor unlike them . . . but must be held in union to possess colour" (Lucreti *De rerum natura* ii. 741 f).

55. George Sarton, *Introduction to the History of Science* (Baltimore: Carnegie Institution, 1927), I, Pt. I, 69, fn.

56. Brajendranath Seal, *The Positive Science of the Ancient Hindus* (London: Longmans, Green and Co., 1915), pp. 93-94.

bination for their existence. Another difference between the two atomic theories lies in the specificity of the Jain account with regard to combination. Perhaps the main difference between the atomistic views of the Greeks and those of the Indians lies in the Greek attempt to explain quality in terms of quantity and the Indian attempt to explain quantity in terms of quality.[57]

The Jains believe that atomic linking into aggregates or molecules *(skandhas)* occurs in the following fashion: two atoms make one binary *skandha;* a tertiary *skandha* is formed by adding one more atom *(anu)* to a binary *skandha,* and so forth. The ascending grades of *skandhas* are (1) what can be numbered, (3) the indefinitely large, and (3) infinity of the first order, and so forth.[58] The question is raised by Umasvati[59] as to what causes atomic linking, whether juxtaposition or mere contact is sufficient to explain it. He answers the question by denying the efficacy of contact. What is required is that one particle of matter be negative and the other positive. A smooth atom, that is to say, must link with a rough one. If atoms are defective or feeble they cannot link. Homogeneous atoms do not unite if both are positive or if both are negative or finally, if both have these qualities in about equal intensity. But if one of two homogeneous atoms in contact has about twice the strength of the other, linking may occur, and in such a case of unequal intensity, the higher intensity modifies the lower. This theory of linking, in the light of later discoveries in chemical and electrical theory, is perhaps more suggestive than that of Lucretius where the atoms possess "swerve" which enables the hooked atoms to come together and combine in a mechanical fashion.

Karma has a material nature according to the Jains. It is divided into *jiva-karma* (soul karma) and *ajiva-karma* (non-soul karma). As the soul has commerce with the external world by means of the senses it becomes penetrated by particles of subtle matter. According to B. S. Prasadji:

57. Paul Masson-Oursel, *Comparative Philosophy,* trans. V. C. C. Collum (London: Kegan Paul, Trench, Trubner and Co., 1926), p. 128.

58. Jaini, [Umasvati] v. 23 f.

59. Umasvati is said to have written his famous works in the first century A.D. See Surendranath Dasgupta, *A History,* I, 171.

> . . . There are fine karmic molecules made up of material particles floating throughout the universe. They are so fine that they cannot be known by our senses. This mundane soul attracts them according to good and bad thought-activities when performing actions through mind, body and speech. This is called *āsrava* or inflow. Their existence with the soul for some duration is called *Bandha* or bondage.[60]

These atoms of subtle matter build up a special body within the pure self or soul which is not finally dispelled until emancipation or omniscience. "Just as gold and silver when melted together become one mixture, so also there is mixture of soul and karmas on account of its bondage with karmas."[61] Omniscience occurs as soon as the karmic body *(kārmaṇaśarīra)* is dispelled. The *jiva-karma* are conscious while the *ajiva-karma* are unconscious. As the individual has daily intercourse with the external world, karma penetrates the organism, and hence, strictly speaking, karma is *in* the organism and not simply mark-leaving.[62] Karmic particles can be neutralized or annihilated, but these activities will be discussed in the section below on Jaina ethics.

Contrasted with matter *(pudgala)* is consciousness *(jiva)*, literally "alive." The *jivas* are divided into three classes: (1) the *bound* which are subject to matter; (2) the *liberated* which are nearly free of matter; and (3) the *perfect* which are completely free of matter. However, the classical sharp division of Descartes between the two world substances is not applicable to Jainism. Masson-Oursel writes:

> . . . As for India, she has never placed spirit and body in antithesis as two substances; even when she has held them to be hostile the one to the other, as for example, Jainism, she has always considered

60. B. S. Prasadji, *A Comparative Study of Jainism and Buddhism* (Madras: Jaina Mission Society, n.d.), pp. 197-98. The word *āsvara* means "influx." The Buddhists used it to denote sin, corruption, and depravity. See S. C. Ghoshal, *Nemichandra,* p. 29.

61. Prasadji, *A Comparative Study,* p. 211. The Jains are not far from giving the soul a kind of atomic status, which it must have (for the sake of consistency) if there is to be an admixture of the atomic particles of karma and the soul. See Ajit Prasada (ed. and trans.), *Shrimat Amrita Chandra Suri. Purushartha-Siddhyupaya* (The Sacred Books of the Jainas, Vol. IV [Lucknow: Central Jain Publishing House, 1933]), p. 12.

62. As is held by Radhakrishnan, *Indian Philosophy,* I, 319. For further substantiation of this interpretation, see S. C. Ghoshal, *Nemichandra,* p. 31.

> that the soul possesses the body it has merited, which testifies to the closest solidarity between them. Further, rather than two substances, she acknowledges a hierarchy of functions of which some, doubtless, are corporeal and others spiritual, but without there being any antithesis between the two groups. . . .[63]

Jainism is nondualistic, and although pluralistic, approaches closely to a kind of monism. It is almost a materialistic monism from one point of view, namely, if one considers that all manifestations of life, consciousness *(jiva)*, with the exception of the perfect extended *jiva (nityasiddha)*, contain matter. There is no suggestion, however, of there being a principle of life or consciousness in matter itself except in so far as the principle of motion, which is extended, has a kind of abstract life.

There is, furthermore, only one nonextended substance, that is, time *(kala)*. All other substances, whether animate or inanimate, are extended. One is inclined to raise the question: How can one have an extended substance without matter, such as perfect *jiva?* The Jains, presumably, come within two steps of postulating material monism. The first step which prevents this is the doctrine of time; the second is the doctrine of perfect *jiva*. What makes these two blocks to an outlook of materialistic monism so surprising is that Jainism unhesitatingly associates consciousness and matter until the last step of liberation, where suddenly matter, but not extension, disappears in the state called omniscience. One might have expected matter *and* extension to disappear, but presumably matter and extension have no mutual implication.

The situation in Jainism with regard to extension without matter is perhaps not unlike that in which Josiah Royce finds himself concerning the self *(jiva)* in its relation to the larger community. Royce holds that:

> The *first* condition upon which the existence of a community, in our

63. Masson-Oursel, *Comparative Philosophy*, p. 138. On the contrary, there is a sense in which Indian philosophers of the idealistic tradition (leaving Jainism aside) have not sharply separated *mind and body* but have differentiated markedly between *spirit (self) and body*. In the terminology of Gilbert Ryle, this means that there is not only a ghost in the machine, but a ghost in the ghost in the machine. See G. Ryle, *The Concept of Mind* (New York: Barnes and Noble, 1950), p. 168.

> sense of the word, depends, is the power of an individual self to extend his life, in ideal fashion, so as to regard it as including past and future events which lie far away in time, and which he does not now personally remember. That this power exists, and that man has a self which is thus ideally extensible in time without any definable limit, we all know.[64]

"Extension," in this Roycean sense, would be ideal (nonphysical, nonmaterial) in a "continuum" which is spatial but perhaps nontemporal. It would be nontemporal, or perhaps supertemporal, in the sense that it would not be confined to the present but would include the past and future. Such extension, essentially ideal, is perhaps not unlike that indicated by the Jains in the notion of extension in the nonmaterial sense. We may say, then, that the Jaina metaphysics is pluralistic, atomistic, and tending toward a materialistic monism.

Doctrine of Soul

The notion of soul in Jainism is like that of the Carvakas in the sense that soul linked with matter may contain karmic matter on its lower levels. "The soul exists (in *saṃsāra*[65]) in combination with karma (karmic) matter."[66] This soul is quite unlike the Buddhist, since it is a permanent entity and, in its perfect state, freed from admixture of matter, and hence simple and incorruptible. The soul remains permanent through many changes and is connected with the body and "the doer of all actions."[67] Souls possess varying sizes, contracting and expanding to "fit" the dimensions of the bodies they successively possess. That souls are thought of as "fitting" the bodies they possess is an indication of how close the Jains are to admitting a physical soul.

The souls are divided according to the number of sense organs they "possess," from the highest, with five organs, to the lowest, with one. Some men and gods, in addition to the

64. Josiah Royce, "The Problem of Christianity," *Classic American Philosophers*, ed. Max H. Fisch (New York: Appleton, Century, Crofts, 1951), p. 201.

65. That is, in the cycle of suffering existence.

66. Kundakunda, *Pañchāstikāya-gatha* v. 27, trans. and cited by Jaini, *Outlines*, p. 77.

67. Swami Karttikeya, *Anupreksha-śloka, ibid.*

five usual senses, have a sixth, which is rationality *(manas)*.

> Having well considered it, having well looked at it, I say thus: all beings those with two, three, four senses, plants, those with five senses, and the rest of creation, (experience) individually pleasure, or displeasure, pain, great terror, and unhappiness. Beings filled with alarm from all directions and in all directions. See! there the benighted ones cause great pain.[68]

Worms possess two senses, ants possess three, bees have four, and ordinary men have five. Extraordinary men may have six senses—the sixth sense including mind reading and omniscience.

There is a hierarchy of souls from the subtle to the gross, from the invisible to the visible. There are elemental souls, such as earth souls, fire souls, water souls, and air souls, which possess only one sense.[69] There is also a reserve of souls in the world (as Lucretius has a reserve of atoms)[70] that replaces those souls attaining bliss.

The consciousness of a soul is dependent upon the condition of the body in which it resides, such that, in inorganic matter, the soul's power of consciousness is dormant, having a mere potentiality for consciousness.

Unlike the Carvaka and Lucretian soul, the Jaina soul is immortal and continues to be reborn with new bodies until it attains to bliss. It then leaves the ordinary cycle of events and resides eternally at the top of the universe in the celestial realm.

Ontological Realism

Whereas the early Buddhists are probably nominalistic, and the Carvakas certainly so, the Jains are moderate realists. There is no class essence *ante res* for them, but they do recognize, as the Theravada Buddhists do not, that there are common characters or resemblances among individual things *in rebus*. There are certain fundamental qualities common to the members of a class. The Theravada Buddhist, as we have al-

68. *Ācārāṅga-sūtra* i. 1, 6, cited by Jaini, *ibid.*

69. *Tattvārtha-sūtra* (Umasvati) ii. 13, 14, *ibid.*, p. 82.

70. So that there is no danger of a finite number of atoms piling up at the "bottom" of the universe (the void, in Lucretius).

ready seen, recognizes the existence of specific instances of an individual but no properties common to a group or class of individuals.

The Jains recognize the existence of one universal, namely, similarity. Similarity is acquired by means of the sense organs when one recognizes immediately that two objects are similar, for example, in that they both possess whiteness. The one universal is not eternal or immutable according to the Jains but temporary, being produced and destroyed along with the individual in whom it exists. This would appear to give them a position of moderate realism.

An object of knowledge, say the Jains, is both particular and universal. That is to say, any object is characterized by properties which it shares with other objects *(sāmānya)*, not *ante res*, and also by distinctive properties that it alone possesses *(viśeṣa)*. Consciousness of an object involves assimilation and discrimination. Assimilation is the result of common properties, and discrimination is the result of distinctive properties.

According to Sinha there are two Jaina universals: (1) similar properties *post res*, such as horns or udders in cows, and (2) relatively permanent properties which abide in the stream of events in the past, present, and future, such as the earthiness of earth, as a mountain or as the wall of a hut. What makes the permanent substance a universal is its property of similarity to itself in different states, despite numerous modifications.[71]

The Jaina view of universals has an interesting parallel in the Indifferentism of Adelard of Bath, a twelfth-century Englishman.[72] The Indifferentist view is that substance is individual and concrete, but that it also possesses properties that are common to other individuals. Common properties exemplify nondifference, that is, similarity between individual substances, and it is in this sense that there may be universality. Universality is exemplified by similarity. According to Windelband, "This real similarity *(consimilitudo)* is the indif-

71. Manikyanandi [Māṇikyanandin], *Parīkṣmāmukha-sūtram*, 5, cited by Jadunath Sinha, *Indian Psychology*, p. 174.

72. Teacher of Henry II and translator of Euclid from Arabic to Latin subsequent to a visit in Spain.

ferent (not different) element in all these individuals, and thus the genus is present in its species, the species in its individual examples, indifferenter."[73]

View of Deity

Everything-that-is for the Jain consists of the ordinary universe of *loka* and the eternal universe of *aloka*. The ordinary universe (of extension) contains not only the natural world, but also a celestial sphere and an infernal one. The eternal, perfect universe (nonextended) contains no creatures of any kind: no Siddhas (perfected men), no demons, no angels, and no deity. As the result of criticism by orthodox Hindu philosophers, the Jains developed arguments, unlike the Carvakas and Buddhists, showing that belief in the supernatural as deity is unfounded. Their discussion of the existence of deity may stem from the Nyāya doctrine that the world is an effect of some kind, and, being an effect, must have been created by an intelligent agent. This intelligent agent, says the Nyaya, is *Īśvara* (God).

Supposing Nyaya is correct, say the Jains, what do the Naiyāyikas mean by "effect"? They must mean by effect one of the following:

1. that which is made up of parts;
2. the coinherence of the causes of a nonexistent thing;
3. that which is regarded by anyone as having been made; or
4. that which is liable to change.[74]

If we now examine these four possibilities we discover the following to be the case:

A. With regard to (1) above: If being "made up of parts" means existence in parts, then the class concepts existing in the parts should also be regarded as effects, and hence destructible, but these the Naiyayikas regard as being partless and eternal. Even space, which the Nyaya holds as eternal, must be an effect. This criticism is leveled at the internal consistency of the Nyaya position.

73. Wilhelm Windelband, *A History of Philosophy*, trans. J. H. Tufts (New York: Macmillan Co., 1901), p. 297.

74. Surendranath Dasgupta, *A History*, I, 203 f., following Guṇaratna, *Tarkarahasyadī-pikā*.

B. With regard to (2) above: The world cannot be spoken of as an effect because atoms, which are eternal, even in the Nyaya view, coinhere in the causes of nonexistent things becoming existent. This criticism is also directed toward the internal consistency of the Nyaya position.

C. With regard to (3) above: Even space would have to be regarded as "having been made" for when a man digs the ground he thinks that he has made new space in the hollow which he dug. This criticism reveals the ambiguity of the term "make."

D. With regard to (4) above: If God himself creates, then he is liable to change and therefore in need of another creator and so on *ad infinitum*.[75] This is a biological criticism of the Naiyayika position.

Even if it is admitted that the totality of the universe is an effect and this effect has a cause, it need not follow that this cause is intelligent as God is held to be. If God is considered intelligent on the analogy that human agents are intelligent, then by the same token, he may also be imperfect as human agents are imperfect.

The similarity of this approach to Hume's is striking. Hume attacks the notion that by means of analogy we can arrive at the conception of a deity with intelligence and other attributes usually assigned to him.[76] We might well hold, on the basis of analogy, Hume suggests, that the world was made by a bungling infant God. Concerning the notion that if there must be an "Author of Nature," there must also be an "Author of that Author," says Hume:

> How therefore shall we satisfy ourselves concerning the causes of that Being, whom you suppose the Author of Nature, or, according to your system of Anthropomorphism, the ideal world, into which you trace the material? Have we not the same reason to trace that ideal world into another ideal world, or new intelligent principle? But if we stop, and go no farther; why go so far?[77]

75. *Ibid.* See also J. N. Sinha, *Introduction to Indian Philosophy* (Agra: Lakshmi Narain Agarwal Educational Publishers, 1949), pp. 114 f.

76. David Hume, *Hume's Dialogues Concerning Natural Religion,* ed. Norman Kemp Smith (Oxford: Clarendon Press, 1935), Pt. I.

77. *Ibid.*, Pt. III. Hume's reference in the *Dialogues Concerning* to the supposedly Brahmanical assertion "that the world arose from an infinite spider, who spun this whole complicated mass [the universe] from his bowels" is a mis-

With this view the Jains would be in general agreement.

The Jains say, furthermore, that if one holds that the world is such that we have a feeling that it was made by someone, the question arises as to whether one infers God from the feeling or infers the feeling from the belief that the world was made by God.

We now turn to several Jaina arguments concerning the nature and existence of deity based upon "experience."

1. If the world was created by an agent, this agent would require a body. If we examine corn growing in the field we may there find the cause of the corn without finding any intelligent agent. If the corn is also said to be made by God, then we are arguing in a circle.

2. If the mere abstract existence of God could produce the world, then why cannot the abstract existence of a potter create the world? If it is said that God produces the world by knowledge and will, then it must be admitted that God has a body, for there is no knowledge or will apart from a body. God may be held omniscient, but this does not make him a creator of the world.

3. Let us suppose that God can create the world by an act of will. Does he create out of (a) personal whim? If so, there will be no natural law nor order in the world. Does he create according to (b) morality? Then he is not independent. Does he create out of (c) mercy? Then we should suppose that there is only happiness to be found in the world, which is not the case. If unhappiness is the result of vicious past actions of men, working like blind destiny, then blind destiny may replace God. If God created the world out of (d) sport, then he must be like a child. Finally, if creation took place through God's nature, why not say that the world came into being out of its own nature?[78]

4. We have seen that God is supposed to create the world out of nothing, but he could not, without accessories of any kind. Such a view, that he can create without instruments and stuff, is contrary to all experience.

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conception based upon an Upanishadic simile, which states that the world arose "as if" spun from the bowels of a spider.

78. Surendranath Dasgupta, *A History*, I, 203 f.

God, if he exists, cannot have the properties attributed to him. If he has will, then he must have a body. If he has intelligence, then he must have organs of knowledge. If there is one God, there may be a society of Gods.[79] The proofs for the existence of God are worthless and not even consistent with other beliefs held by philosophers who adduce them. Hence, we shall do better, say the Jains, by dispensing with the supposition that God exists.[80]

Jainism like Carvaka is hostile to introducing certain supernatural explanations into the "natural" order. The difference between the Jaina and Buddhist position is that the Buddhist shows lack of concern for the supernatural as a supreme being whereas the Jain shows open hostility to it.

But despite this rejection of a familiar form of supernaturalism, Jainism has certainly a realm which is nonnatural if not strictly supernatural by Western standards. This is the realm of *aloka,* which appears to be outside the natural universe of *loka.* The belief that omniscient men can perceive this nonnatural realm is contrary to naturalism. We must conclude, therefore, that Jainism is nonnaturalistic in its belief not only in heaven and hell, but also in *aloka.* Jaina metaphysics in general, then, is nonnaturalistic.

Ethics

Jaina ethics, like Buddhist ethics, has for its aim the release of the self or soul from the bondage of material existence. This means ridding oneself of karma particles. For the Buddhist, karma is ideational rather than physical. Both the Jain and the Buddhist believe that karma has material as well as ideational consequences. The Jains hold that "The soul, purified of the dirt of karmic matter, goes up to the end of loka, acquires complete knowledge and perception and attains infinite and (supra- or) non-sensual bliss."[81] The Jain's soul in bliss does not submit to the slightest attachment to anything.

79. See H. Bhattacharyya, *Divinity in Jainism* (Madras: Devendra Co., 1925), for a detailed account of Jaina humanistic quasi-supernaturalism.

80. Surendranath Dasgupta, *A History,* I, 203 f., following Guṇaratna, *Saddarśanasamuccaya,* 167.

81. *Pañchastikāya-gatha* x. 28, trans. Jaini, *Outlines* in "Texts."

Once it becomes free from attachment, it crosses the ocean of *samsara* (cycle of mundane existences). Having become completely free from karmic attachment, the soul possesses "perfect perception, perfect knowledge, infinite bliss, and infinite power, is a perfect saint, and having perfect enlightenment, is known as Jina-deva (or the divine conqueror)."[82] Other qualities attributed to a soul that has attained this state include "godhead," "equipped with thirty-four kinds of supernatural powers 'atiśaya,'" "Arhat-ness," "above all powers of speech," "sublime in knowledge of the Universe and Beyond," and "steady at the summit of the universe."

Jainism seeks for the liberation of the individual soul by means of releasing it from the bondage of matter. This is achieved by means of a moral apparatus called the three jewels *(triratna)*: faith in Jina (Mahavira and other Tirthamkaras),[83] knowledge of Jina's doctrine, and perfect conduct.[84] The three jewels are to be simultaneously pursued.

Virtue for the Jain consists in the following fivefold conduct of one who has both faith and knowledge:

1. innocence or *ahimsā*, positive kindness to all creation;
2. charity and truth-speaking;
3. honorable conduct, such as not stealing;
4. chastity in thought, word, and deed;
5. renunciation of all worldly interests (including the practice of nakedness for the Digambara Jains).[85]

There are fourteen possible stages of the soul in its pursuit of purity:

1. false belief, the thought-state of the soul due to the manifestations of karmas that produce false knowledge, belief, or perception;

82. Yogīndrā, *Paramātma-prakāśa,* 330, *ibid.*

83. The Saviors prior to Mahavira are also called Tirthamkaras or ford-makers. There are also ford-makers after Mahavira, whose status is higher than ordinary mortals, a status earned on earth rather than given by grace or other divine power.

84. S. C. Ghoshal, *Nemichandra,* p. 39.

85. While the Svetambaras originally practiced their ethics in northern India, where the temperature may drop below freezing in the winter months, the Digambaras lived in subtropical southern India, where nudity is highly desirable (not taking insects into account). The two sects split during the first century A.D.

2. backsliding, when the soul falls from the fourth stage to the first on account of false belief;
3. mixed right and wrong belief, when the soul falls from the fourth back to the first stage;
4. right faith, but not acted on, where the soul has faith, but cannot observe the necessary vows;
5. beginning of right conduct, which is partial renunciation of the world;
6. slight negligence in right conduct, where worldly objects occasionally turn the mind to the body;
7. right conduct free from negligence;
8. initiation to the higher life;
9. incessant pursuit of the higher life;
10. condition almost devoid of desires, where all passions are destroyed, leaving mere nominal desire;
11. condition entirely devoid of desires;
12. infatuationlessness, where the intoxicating karma are destroyed;
13. omniscience in the embodied condition where there are still vibrations in the soul;
14. omniscience with perfect harmony and peace with no vibrations. "This is obtained when there is before the sayoga-kevalin's death enough time to speak out the five letters. . . ."[86]

In the pursuit of the path toward liberation, it is possible to gain merit *(puṇya)* in nine ways, four of which are giving food to the deserving, water to the thirsty, clothes to the poor, and shelter to the monks. Not only is it possible for a Jain monk to reach moksha, but this is possible for anyone pursuing the Thirty-five Rules of Conduct.[87] The quintessence of these rules is that one should gain an honest living as a householder, marry one's sons and daughters to decent folk, be fearful of committing sins, and never speak ill of any man, particularly the ruler. One should be grateful for aid, be loved by people, be modest, merciful, serene, and benevolent. "Such are the suggestions of a house-holder's duties."[88] "No matter

86. *Gommaṭa-sāra: Jīva-kanda,* 8, trans. Jaini, *Outlines,* "Texts."
87. S. Stevenson, *The Heart of Jainism* (London: Humphry Milford, 1915), pp. 243 f.
88. *Ibid.*, p. 245.

whether he is a Svetambara or a Digambara, a Buddhist or a follower of any other creed, one who has realised the self-sameness of the soul, i.e., looks on all creatures as his own self, attains salvation."[89]

No other philosophy makes a more exhaustive analysis of karma than Jainism. This is perhaps to be expected since only the Jains treat karma as being itself physical. In commenting on Stevenson's statement, "As Karma . . . does inflict hurt or benefit, it must have a form!"[90] Jaini says, "It has form because it *is* matter."[91]

Karma arises from four sources or "attachments" according to the Jains. First, it rises from attachment to such material things as food, clothing, lodging, women, and jewels; second, it rises from anger, pride, deceit, or greed; third, it rises by one's uniting one's body, mind, and speech to worldly things (this obviously overlaps the other two attachments); and last, false belief is a fruitful course of karma.[92]

According to theistic Hinduism it is God who inflicts punishment for karma, just as a judge inflicts penalties for actions contrary to law. The Jains believe, on the contrary, that karma acts without outside intervention, that accumulated karma has "energy" which is either worked off or increased, depending on the acts of the individual possessing the karma. Karma is formless for theistic Hinduism, whereas it has form and matter for Jainism.

> A scarf may accumulate dust that can be easily shaken off, but if it should get stained with oil, it will need much washing; so, according to its nature, some karma is got rid of easily, but some only with great difficulty. As heat is latent in wood, oil in sesame seeds and ghi in milk, so karma is latent in all actions.[93]

This analogy is more sensible than the type mentioned by Steb-

89. Ratnaśekhara, *Sambodhasattari*, cited by Radhakrishnan, *Indian Philosophy*, I, 328.
90. J. L. Jaini, *The Heart of Jainism: A Review* (Ambala: Shri Atmanand Jain Tract Society, 1925), p. 40.
91. *Ibid.* (our italics).
92. C. R. Jain, "The Jain Theory of Karma," *The Indian Philosophical Review*, April, 1920.
93. Stevenson, *The Heart*, p. 175.

bing where spirit is held to be analogous to the flame of a candle, for at least there is no mixing here of corporeal and incorporeal types.[94] But it still does not explain *how* or *when* karma gets into human actions.

The most important aspect of the Jaina view of karma for naturalism is the notion that karma is material and atomic, having an infinite number of atoms.[95] The atomic particles of karma are also without beginning.[96] As molecules they may lose certain particles and gain new ones. The soul as *siddha* has no karmic particles, but all other human souls do. These particles are transmitted from one incarnation to another. The soul as *siddha* is free of karmic particles; as *arhat* it may still possess a few.

Of all the Indian views of karma the Jain is the most naturalistic. The Jains are able to go into greater detail than other believers in karma since they have a physical model with which to deal. If one asks, "How can a *part* of what is patently nonnaturalistic be naturalistic if the *whole* is nonnaturalistic?" a justifiable answer may be given. Certainly the Stoics hold some naturalistic doctrines even if their metaphysics is in general nonnaturalistic in its emphasis on the role of Logos. What must be reiterated here is that the separation of naturalistic and nonnaturalistic elements is neither easy nor clear-cut. If we adopt a hard and fast rule determining whether or not one system or another is naturalistic, then we are likely to rule out Greek philosophy including Epicurus, who was so imprudent as to have deity metacosmon, and Democritus, who once said, "He who chooses the advantages of the soul chooses things more divine, but he who chooses those of the body, chooses things human."[97] We can, of course, make of Democritus a naturalist by holding that this sentence should be interpreted as hypothetical only. Democritus' statement would then read, "*If* there are divine things, *then* he who chooses them chooses the advantages of the soul. . . ." We have, therefore,

94. See L. Susan Stebbing, *A Modern Introduction to Logic* (6th ed.; London: Methuen and Co., 1948), p. 254.

95. Jaini, [Umasvati] ii. 39.

96. *Ibid.* ii. 41.

97. Democritus, Fragment 37, in Hermann Diels, *Die Fragmente der Vorsokratiker,* ed. Walther Kranz (7th ed.; Berlin: Wiedmannsche Verlagsbuchhandlung, 1954), II, 155.

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I shall not give way to sensuality, &c. . . .
There are five clauses.
The first clause runs thus:
A Nirgrantha does not continually discuss topics relating to women. The Kevalin says: If a Nirgrantha discusses such topics, he might fall from the law declared by the Kevalin, because of the destruction or disturbance of his peace. . . .
Now follows the second clause:
A Nirgrantha does not regard and contemplate the lovely forms of women. . . .
Now follows the third clause:
A Nirgrantha does not recall to his mind the pleasures and amusements he formerly had with women. . . .
Now follows the fourth clause:
A Nirgrantha does not eat and drink too much, nor does he drink liquors or eat highly-seasoned dishes. . . .
Now follows the fifth clause:
A Nirgrantha does not occupy a bed or couch affected by [in proximity to] women, animals, or eunuchs. The Kevalin says: If a Nirgrantha did occupy a bed or couch affected by women, animals or eunuchs, he might, &c. . . .
5. The fifth great vow runs thus:
I renounce all attachments, whether little or much, small or great, living or lifeless; neither shall I myself form such attachments, nor cause others to do so, nor consent to their doing so, &c. (all down to) exempt myself. [102]

Jaina ethics like early Buddhist ethics is primarily concerned with the salvation of the individual which must take place through his own efforts. The individual Jain's efforts are slightly implemented, if he is a monk or ascetic, by other members of the order to which he belongs. If he is a layman, he can expect advice and moral support from the Jain orders.

What form the individualism of Jainism (and Buddhism) takes may be seen more clearly if we contrast the views expressed in these two systems with another system contemporary with them, Confucianism. Early Confucianism is based upon the notion that the good life consists in each man possessing true manhood or jen. True manhood consists in (1) mastering oneself and (2) restoring the moral order. ". . . When the per-

102. *Acaranga-sutra* ii. 15, 1 f., *ibid.*

sonal life is cultivated, then the family life is regulated; when the family life is regulated, then the national life is orderly; and when the national life is orderly, then there is peace in the world."[103] Although morality begins with a personal decision, it ends in an orderly national life. When there is an orderly national life then it is easier for each individual to live the moral life. The moral interdependence of the individual and society is stressed.

The view of Jainism and early Buddhism, on the contrary, is that it is the individual's duty to attain liberation *from* society. Confucius' social humanism is succinctly brought out in another passage, where he says, "We do not yet know how to serve men; how can we know how to serve the spirits? . . . We do not yet know about life; how can we know about death?"[104] Contrary to this Confucian humanistic regard for both the individual and society is the view of the Jains, who hold, "Alone he accumulates merit; alone he enjoys the various happiness of heaven. . . ."

The individualistic egoism of the Jains, then, is similar to that of the early Buddhists. Each individual should strive for his own salvation and rid himself of material attachment and attendant rebirth. The natural world of matter, whether gross or subtle (karmic), should be avoided and abandoned. This does not mean that we can literally leave the universe, but that we should be *in* the universe without being *of* it. It is possible to attain such a state in *this* life and in *this* world. The Jains believe that it is by thought control that nonattachment is possible, although certain acts having physical implications may increase one's ability to become detached and unbound.

Summary

Despite certain evidence of naturalism at the lowest level of knowledge where correspondence plays a primary role, it must be concluded that Jaina epistemology is not naturalistic.

103. Confucius, *The Great Learning,* quoted by Chan Wing-Tsit, "The Story of Chinese Philosophy," *Philosophy–East and West,* ed. C. A. Moore (Princeton, N.J.: Princeton University Press, 1946), pp. 26-27.

104. Confucius, *Analects, ibid.*

The highest source of knowledge for Jainism is the a priori transcendent omniscient mind possessed by the *arhat* and *siddha*. Besides this knowledge there is telepathic knowledge which makes mind reading possible for certain seers and ascetics. Although propositions based on sacred scriptures are not infallible, they are accepted with a minimum of critical examination as compared with Buddhist scrutiny of their own scriptures.

Propositions arrived at empirically are regarded as true if they correspond to the object talked about or considered. Yet propositions are relegated to an inferior position in the hierarchy of the five levels of knowledge.

Second, Jaina metaphysics may be called naturalistic in possessing the following characteristics: (1) There is no First Cause or Deity who either creates the universe or keeps it running. (2) The world of *loka* consists of matter made up of atomic particles that are outside the consciousness of the individual knowing the world. (3) Karma itself is material. It acts in a physical way, literally entering the soul. (4) The soul itself has physical properties such as the ability to contain physical karma and to expand or contract to fit the body in which it finds itself. How the soul ultimately can be both subject to matter and also not subject to matter is a major problem of the system. (5) The Jaina cosmology has certain naturalistic elements in it: (5a) all the uncreated entities except one are extended, that exception being eternal time in the realm of *aloka;* (5b) all the elements outside of *aloka* come in contact with material elements in more than a parallelistic manner; and (5c) its cosmology verges on being an "extended monism," very nearly a physical monism.

Third, the ethics of Jainism is naturalistic in so far as it is humanistic. The Jain does not depend upon any supernatural deliverance or intervention to achieve moksha. He can realize bliss on the basis of his own powers as a human being. Each man needs only to relieve himself of karmic matter in order to attain perfection. Another possible feature of Jaina naturalism is its concern not only with the treatment of human beings, but also with the treatment of lower life. This concern is greater than that revealed in Buddhism. The principle of *ahimsa* is carried further in Jainism than in any other known ethical sys-

tem. On this principle we must not injure any living being regardless of the complexity of its soul or sensibility. Part of this concern is related to the belief that even vegetables may contain the *jiva* of former human beings. Even if a vegetable or insect were never to contain a former human soul it would still be forbidden to harm it.

Jainism, then, is clearly naturalistic in the following ways.

1. Whereas Buddhism is indifferent to the status of deity, the Jains are openly hostile to introducing the supernatural.

2. Jainism unqualifiedly accepts the independent givenness of the external world of objects as known by sense perception and, furthermore, allows infiltration of the external world, as karmic particles, into the soul of the individual. This is an important step toward acceptance of the unity of mind and body.

3. Jainism contains a humanistic ethics in its doctrine that man controls his own moral life, making ethical decisions and finding ethical goals without nonhuman assistance or intervention.

Both early Buddhism and Jainism metaphysically accept the natural world; both, however, reject it morally. While Buddhism is slightly more naturalistic in its methodology, Jainism nearly balances this by being in some respects more naturalistic in metaphysics. Both systems have strong humanistic tendencies which are prevented from fruition by the belief that the natural world is morally unsound.

6. NATURALISTIC FORMS OF HINAYANA BUDDHISM

Types of Buddhism

It is a common misconception that Buddhism consists of a well-defined group of doctrines based ultimately on oral traditions of the Buddha collected sometime after his death.[1] There are, on the contrary, such remarkable differences among the many Buddhist schools that it is perhaps incredible that they should all bear the same appellation, Buddhism. This name, common to all forms of Buddhist philosophy, depends more on a religious tradition of forms and icons than on a single philosophical foundation.

The situation regarding Buddhism will perhaps be clearer if we imagine Plato, the Cyrenaics, Cynics, Neo-Platonists, Augustinians, Kierkegaard, and Whitehead all being considered Socratics. There are certain threads linking the schools and founders of schools to Socrates, to be sure. Yet divergences among them are so startling that we may question the utility of labeling them Socratic. Just so with the schools of Buddhism. All the schools of Buddhism appear to have some belief or

1. Perhaps one hundred years or more after the nirvana, *ca.* 350 B.C. See Walter Ruben, "Zur Feier von Buddha 2500 Geburtstag am 23. Mai 1956," *Wissenschaftliche Zeitschrift der Humboldt-Universität zu Berlin,* V, No. 2 (1956), 139. See also E. Frauwallner, *The Earliest Vinaya and the Beginnings of Buddhist Literature* (Serie Orientale Roma, VIII, ed. G. Tucci [Rome: Istituto Italiano per il Medio ed Estremo Oriente, 1956]), p. 7.

ceremony relating them to the historical Buddha: with that we shall have to be satisfied.

The Buddhists turned away from some of the general teachings of the Vedas and Upanishads but not nearly so much as the Carvakas had done. Buddhism arose in a predominantly Brahmanistic environment[2] although it should not be regarded, especially in its Theravada[3] forms, as an offshoot of Brahmanism alone.

There is no need here to indulge in any discussion of the relative merits of the various schools of Buddhism under its twofold division of Hīnayāna, the Small Way, and Mahāyāna, the Great Way. This division, used partly for convenience in enabling one to distinguish between Indian-Ceylonese-Burmese-Siamese (south), and Tibetan-Nepalese-Chinese-Korean Japanese (north), Buddhism, has also the emotive function of attributing greater importance and respectability to the latter. Occasionally this division has the function of attributing to the former greater respectability because it is held to be more primitive.[4]

The reason why Buddhism, of all Indian philosophies, is difficult to treat is that it, alone of the Indian systems, has become ecumenical. Its development must be understood in terms of the intellectual and social climate of many different countries. A suggestively close counterpart to the division between Hinayana and Mahayana is the division between Catholicism and Protestantism in Christianity. A rather indicative equation is: Buddhism is to Brahmanism what Christianity is to Judaism,[5] if we remember that Brahmanism much more than Judaism contributed to philosophical speculation and that Brahmanism much more than Judaism was receptive to the new movement.[6]

2. See chapter 2 above for a discussion of the intellectual climate of this period.

3. Following the view of G. P. Malalasekera, interview in Colombo, September 26, 1951.

4. See René Guénon, *Introduction to the Study of the Hindu Doctrines* (London: Luzac and Co., 1945), p. 205.

5. *Ibid.*, p. 207.

6. E.g., the most famous temple at Conjeeveram has bas-reliefs of the Buddha, perhaps somewhat less than two feet high, inside its outer wall, although it is an orthodox Hindu temple of the eighth century.

The Beginning of Buddhism

Like all lively history, the history of Buddhism is constantly being written and rewritten as new materials are discovered and old materials reinterpreted. At the present time it is believed that the earliest Buddhism split into two groups in about the third century B. C. at the Council of Pāṭaliputra (Patna): the Mahāsāṃghika and the Sthavira (or Sthaviravādins or Theravādins). It is known that Hiuen Tsang studied fifteen works in the Abhidharma of the Mahasamghika. The Sthavira split into several schools, the most famous one being the Sarvāstivādin. Also included in the Sthavira group were the Vātsīputriya, Pāli Kāśyapīya, Dharmaguptaka, Mahīśāsaka, and Haimavata, the first to become extinct.[7] After the third council at Pataliputra (308-307 B. C.), the great missions of Asoka began, as far as Kashmir in the north and Ceylon in the south, and at this time the Pali school became highly important.

There developed four major Buddhist canons: (1) the Pali; (2) the Sanskrit, made up of (a) Nepalese scriptures, (b) Kashmir scriptures, and (c) Central Asian texts; (3) the Chinese;[8] and (4) the Tibetan. The Pali Canon, which we shall examine most closely, is called the Tipitika (Three Baskets)[9] and is made up of the *Vinaya-Piṭaka* (rules of discipline),[10] the *Sutta-Piṭaka* (doctrinal portion), and the *Abhidhamma-Piṭaka* (thoughts attributed to the Buddha in the fourth week of his enlightenment [nirvana]). The Pali Canon, which was adopted by the influential elders (hence Theravāda Buddhism or the Doctrine of the Elders), began in an oral tradition sometime before the transplantation of Buddhism to Ceylon. This occurred perhaps one hundred or more years after the death of the Buddha in 483 B. C.[11] or, according to some, as late as 80 B. C.

7. Frauwallner, *The Earliest Vinaya*, pp. 1-41. For the equivalence of Sthaviravadins and Theravadins see W. M. McGovern, *Introduction to Mahayana Buddhism* (London: Kegan Paul, Trench, Trubner and Co., 1922), p. 215.

8. Originally Chinese translations from the Sanskrit. See Sir Charles Eliot, *Hinduism and Buddhism* (3 vols.; London: Edwin Arnold, 1921), I, 275.

9. See T. R. V. Murti, *The Central Philosophy of Buddhism: A Study of the Mādhyamika System* (London: George Allen and Unwin, 1955), pp. 66 f.

10. The Zen Buddhists early attacked the Vinaya as mere formalism.

11. Following the chronology of Edward J. Thomas, *The History of Bud-*

Just how the earliest *Skandhaka,* which provided the original text for the Pali and Sarvastivadin schools among others, was changed from an oral to a written record has been imaginatively reconstructed by Frauwallner, who says:

> We have to imagine the rise of the old *Skandhaka* work about on the following lines. In the 4th century B. C. some outstanding specialist of the Vinaya undertook to collect in a definitive form the Buddhist monastic rules. He did not limit himself to collecting the material and giving it a clear arrangement, but tried also to put it in a form which would make his work the equal of the great Vedic texts. He placed the single precepts in the mouth of the Buddha [who had attained nirvana more than 150 years earlier], enlivened the exposition in the manner of the Brāhmaṇa texts through inserted legends and knitted the whole into a solid unity, by embedding it into the framework of a biography of the Buddha. Moreover, in order to bestow on his work the same sanctity as was attached to the Vedic texts which were attributed to the great seers of yore, he invented the legend of the first council, in which the foremost disciples of the Buddha were said to have collected in an authoritative form the words of the Master immediately after his death, and he led his work back to this collection through a list of teachers. In this way he created a work planned and executed on a large scale, which had no rivals in the Buddhist literature of the time and well deserved to be placed to the side of the Vedic texts, and even surpassed them by the logicity of its structure and by its striking framework.[12]

From the second century B. C., the Hinayana (Theravada) and Mahayana doctrines developed side by side, with considerable interpenetration, until the Mahayana became strong enough to allow its adherents to label the Hinayana what it is usually called today by Mahayanists (and those "foreigners" who have been dominated by Mahayana literature)—Hinayana or the Small or Lesser Vehicle. Stcherbatsky's rapturous account of the superiority of the Mahayana over the Hinayana[13] has been

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dhist Thought (New York: Alfred A. Knopf, 1933), p. xvi. Most scholars of Buddhism do not disagree by more than ten years as to this date. Notable exceptions include Matsumoto's 386 B. C. and some dating in Ceylon, Burma, and Thailand at 544 B. C. See also Surendranath Dasgupta, *A History of Indian Philosophy* (5 vols.; Cambridge, Eng.: Cambridge University Press, 1922-55), II, 598.

12. Frauwallner, *The Earliest Vinaya,* p. 65.

13. Th. Stcherbatsky, *The Central Conception of Buddhism and the Mean-*

repeated by Murti.[14] Much depends upon one's predilections or what C. A. Mace has aptly called "metaphysical directives." Toynbee, for example, speaks of the "sobriety of the Hīnayāna"[15] and speaks of the Mahayana as overgrown with "rank weeds of Superstition."[16] All of this gives only a glimmering of the antipathy on both sides of the fence which finds its "Western" parallel in that of the follower of "primitive Christianity" for the "papist."

Buddhism continued to develop in rather major ways until about the tenth century A.D., at which time most of its main forms had been solidified.[17] It has evolved in minor and subtle ways since then, particularly in Japan.[18]

Mahayana Buddhism, although it first began in India, really belongs in its later ramifications to Nepal, Tibet, China, Korea, and Japan. It may be said that its general spirit places great emphasis on the unsubstantiality of all phenomena, implying that the objects of thought have a conditional, relative, if not conjectural, existence. It maintains a double-aspect theory of existence and truth,[19] such that there are conventional existence and truth and highest existence and truth. Under the conventional aspect of things, deeper meanings remain hidden; under the highest aspect of truth, all that is important to salvation can be understood, including the final goal, nirvana. The

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ing of the Word "Dharma" (Prize Publication Fund, Vol. VII [London: Royal Asiatic Society, 1923]), p. 36.

14. Murti, *The Central Philosophy.* This is one of the main arguments in his book, one of the most stimulating recent studies of Buddhism. Murti even suggests on p. 341 that Mahayana "can serve as the basis for a possible world-culture."

15. Arnold J. Toynbee, *A Study of History* (6 vols.; 2nd ed.; Oxford: Oxford University Press, 1939), V, 557. One might say that Toynbee's estimate is Low Anglican while Stcherbatsky's is Catholic.

16. *Ibid.*, p. 556.

17. Th. Stcherbatsky, *The Conception of Buddhist Nirvana* (Leningrad: Academy of Sciences of the USSR, 1927), p. 4.

18. See Jyan Takakusu, *The Essentials of Buddhist Philosophy* (Honolulu: University of Hawaii Press, 1947), chap. xi. Also D. T. Suzuki, *Essays in Zen Buddhism* (1st series; London: Luzac and Co., 1927-33), and Suzuki, "Some Aspects of Zen Buddhism," *Studies on Buddhism in Japan* (Tokyo: International Buddhist Society, 1939), I, 4-7, showing developments in Eastern Buddhism.

19. See Moriz Winternitz, *A History of Indian Literature,* trans. S. Ketkar (2 vols.; Calcutta: Calcutta University Press, 1927-33), II, 304f.

attitude of Mahayana, in this connection, may be seen in the following passage:

> O sons of gods, the beings are like an illusion (maya), O sons of gods, the beings are like a dream. No, illusion and beings are not two different things, and do not form a duality; and dreams and beings are not two different things, and do not form a duality. Furthermore, O sons of gods, all objects of thought are like an illusion, like a dream.[20]

If the phenomenal world is treated as illusion, dare we expect much naturalistic speculation? Yet the view expressed is mild in comparison with Tibetan, Nepalese, Ch'an,[21] and some Zen[22] Buddhism.

In 1923 Stcherbatsky made much of *the* central focus of Buddhism,[23] to be followed, in 1955, by Murti. They found *the* essence to lie in the Mādhyamika tradition, largely in the framework of Mahayana. Following are the core concepts of the Mahayana teachings: (1) that the centrality of phenomena consists in the supermundane Personality of the Buddha, (2) that there is an ideal of salvation for all beings in Bodhisattva teachings, and (3) that radical pluralism is not a sufficient metaphysical "directive," because only absolutism *(śūnyatā)* is.[24] Our reaction to this is that if the earlier, Abhidarmika, does not accept *the* central idea in Buddhism, in what sense is it the central idea? Since the argument of this chapter rests upon showing that *some* Abhidarmika does not accept "*the* alleged, *the* central idea," we feel it imperative to take note of this.

Murti's scheme shows three major developments in the history of Buddhism, only the first of which will concern us. This phase, according to him, includes the realistic and pluralistic: the Hinayana group with the Theravada and Vaibhāṣika (Sarvastivada) as subgroups of significant importance. This Hinayana

20. Ibid., p. 319, quoting the *Astasahasrika-Prajna-Paramita,* chap. ii.
21. Fung Yu Lan, *A Short History of Chinese Philosophy,* ed. Derk Bodde (New York: Macmillan Co., 1948), chap. xxii.
22. See Suzuki, *Essays in Zen Buddhism.* Zen has never accepted the bodhisattva ideal wholeheartedly. See, for instance, the Sengai verses: "Shakamuni [Buddha], That mischievous creature, Having appeared in this world, --How many, many people, alas, Have been misled by him!" (Reginald H. Blyth, *Oriental Humour* [Tokyo: The Kokuseido Press, 1959], p. 266).
23. Th. Stcherbatsky, *The Central Conception,* p. 24.
24. Murti, *The Central Philosophy,* p. 76.

group, with the "dogmatic" realistic Sautrantika school as a partial modification, is called the Abhidarmika by Murti.

Most of the important features of early Hinayana Buddhism had been developed by the time of Asoka around 250 B. C. After the third century B. C. little new metaphysical speculation began, and, more important for subsequent Buddhism as a religion, the bodhisattva ideal became central. This doctrine is that there exists one particular being who has attained enlightenment, that he is only one among other previous ones, and that he has gradually prepared himself for this enlightenment. There developed from this doctrine the notion, peculiar to Mahayana it is said, not only that one had the duty to achieve one's own release, but that one should also help others to achieve theirs. This is not to say that the Hinayanists did not regard the condition of others with sympathetic concern, but only that they made less appeal than did the later Mahayanists to the notion that men should attempt actively to help others gain release. It is quite obvious, for example, that, during the great missionary activity of the Hinayanists, emphasis was put upon the evangelistic nature of Buddhism. Even the Theravadins felt that one should attain release within one's sacerdotal community.

We have already seen that great intellectual activity was occurring during the time of the Buddha, that it was an era of discussion and shattering of dogma. The Buddha, it is believed, received training along orthodox lines, probably studying the Vedas and the Upanishads.[25] It must be understood that the details of the Buddha's life are as tenuous as those of the Christ's, perhaps even more so, as the lapse of time between the Buddha's life and the written record of it is greater than in the instance of the Christ's life and the Gospels. If the Buddha died in the fifth century B. C. and the earliest written records concerning him are the edicts of Asoka, then there is a gap of more than a hundred years between his life and records concerning it. Information about the Christ, on the other hand, allows for a gap of roughly fifty years between his life and records concerning him.

We do not believe that the Buddha's mission was as icono-

25. See T. W. Rhys Davids and C. A. F. Rhys Davids (eds. and trans.), *Dialogues of the Buddha* (Sacred Books of the Buddhists [3 vols.; London: Oxford University Press, 1899, 1910, 1921]).

clastic as Paul Dahlke maintains.[26] His mission was perhaps that of a mild reformer, although in the light of world history it has, in certain respects, a somewhat reactionary tinge. One need not adhere to the dialectic of challenge-and-response to admit the suggestiveness of Arnold J. Toynbee's statement that

> . . . Siddhartha Gautama was born a Sakya aristocrat at the moment when the older Indic social order, in which this aristocracy had its recognized place, was being challenged by new social forces. Gautama's personal retort to this challenge was to renounce a world which was becoming inhospitable to aristocrats of his ancestral kind.[27]

We have only to compare the Buddha's views with those of Gosala, one of his contemporaries, to see how little was his philosophical divergence from the general orthodoxy of the time. Even if it is true that he was nonfanatical, a disbeliever in a secret theological-philosophical doctrine to be transmitted only to certain designated persons, and a rejector of the Upanishadic doctrine of the self *(atman* and Brahman), these attitudes do not make him, for his time, iconoclastic. That he also was not a great rationalist has been adequately demonstrated by Keith[28] in opposition to such writers as Mrs. Rhys Davids and S. M. Melamed.[29]

It is quite clear, nevertheless, that his approach to philosophical questions was different from, if not superior to, the general orthodox approach of his time. There has been some attempt made recently to make of the Buddha a kind of early

26. Paul Dahlke, *Buddhist Essays,* trans. B. Sīlācāra (London: Macmillan Co., 1908), pp. 330 f.

27. Toynbee, *A Study of History,* II, 271. Because of his unique overview, Toynbee's comments are sometimes valuable, despite his not being an expert on Indian philosophy.

28. See A. B. Keith, *Buddhist Philosophy in India and Ceylon* (Oxford: Clarendon Press, 1923), pp. 14 f. He was probably not an "epileptoid shaman." See Paul Radin, *Primitive Religion: Its Nature and Origin* (New York: Viking Press, 1927), pp. 256 f. He was rather an empirical mystic, although it would be folly to deny his unusual "rational" gifts. Archie J. Bahm in his *Philosophy of the Buddha* (New York: Harper and Bros., 1958), attaches the doctrine of the middle way to the Buddha, in which experience is considered dialectical and paradoxical.

29. S. M. Melamed, *Spinoza and Buddha: Visions of a Dead God* (Chicago: University of Chicago Press, 1933).

positivist,[30] but this could only result from a misunderstanding of what positivism purports and from failure to recognize its origin in a rather recent empirical approach to the problems of philosophy.

Theravada Buddhist Theory of Knowledge

The epistemological heart of the Buddhism of the Pali Canon is that the source of highest knowledge is intuition *(paññā)*. This notion of intuition is closely connected with illumination. Intuition or illumination is self-assured; it is obviously incapable of empirical verification. The Canon, furthermore, shows a number of devices that will promote a state of mind empty of empirical hindrances.

The Buddha regards his own knowledge to be obtained through intuition, by inner consciousness, by self-enlightening intellect. He is said to have called his own knowledge *Bodhi* (from the Sanskrit *budh,* to understand) and not *Veda* (from the Sanskrit *vid,* to know).[31] But this illumination, it is important to understand, is not supernatural revelation of the kind recognized by the Brahmans. The Brahmans believe that the knowledge they possess through the medium of *sruti* is revealed, not by their own intellect merely, but by some higher agency. A bodhisattva, then, until later Mahayana developments, is "one having knowledge *derived from self-enlightening intellect.*"

That the Buddha rejects any claims for supernatural knowledge is certain on the basis of every evidence available. He believes in his own ability to discover the truth on the basis of inner conviction without the aid of any outside agency, whether of scripture, contact with divinity, or even sensible objects. The knowledge approved by the Buddha is not speculative but rather realization of the instability and impermanence of worldly things, of the sorrow and pain resulting from worldly life.[32]

Sense experience is not denied as giving knowledge, as in the case of the Mahayana schools, for the external world is rec-

30. See S. Chatterjee and D. M. Datta, *An Introduction to Indian Philosophy* (3rd ed.; Calcutta: Calcutta University Press, 1948), p. 160.

31. M. Monier-Williams, *Buddhism* (London: John Murray, 1896), pp. 97-98.

32. Samuel Beal (ed. and trans.), *Texts from the Buddhist Canon Commonly Known as Dhammapada* (London: Trubner and Co., 1878), chap. i.

ognized by the Pali Buddhist as existing in a common-sense sort of way. By common-sense sort of way we mean that if one were to suddenly turn to a Theravada Buddhist and ask, "Does that cow standing in that field under that shade tree substantially exist?" he would retort, "Of course it exists!" After that retort he might qualify what he means by "substantially exists," but he would not deny the nonmental existence of the *cow* under the *shade tree*. The Mahayanist, on the other hand, would deny its nonmental existence or attribute to it less reality than that possessed by ideas or mental existence.

Every person, according to the Buddha, is self-created and self-creating. According to the notion of intellectual-move, we may be born of mother and father, inheriting their particles, and still have our own accumulation of latent intellection energy or a kind of innate, subconscious intellect. "All intellect that can be acquired after our birth is called postnatal intellect, or *a posteriori* knowledge."[33] The growth of knowledge should be such that the prenatal intellect is not distorted. In persons ripe for buddhahood, the prenatal intellect is far advanced, so that they can be said to have a great deal of knowledge or wisdom absent from ordinary mortals. The Buddha must have been quite confident in the superiority of this prenatal intellect in himself, although he thinks that it can be perfected finally into the last step of enlightenment. It can be seen, then, that important knowledge, wisdom, will not depend so much on a posteriori, as it will on prenatal, knowledge. Hence, sense knowledge will be inferior to a priori, intuitive knowledge.

According to the *Majjhima-Nikāya,* the process of sensation is similar to the rubbing together of sticks to produce fire, the sticks representing the sense organ and the object. To use a pair of more striking similes, contact between object and sense organ is like the butting together of two rams or the clashing of cymbals. The Buddha's view, as given to his

33. Jyan Takakusu, "Buddhism as Philosophy of 'Thusness,'" *Philosophy—East and West,* ed. Charles A. Moore (Princeton, N.J.: Princeton University Press, 1946), p. 73.

favorite disciple, Ananda, the St. John of Buddhism, is as follows:

"I have said that name-and-form[34] is the cause of contact. Now in what way that is so, Ananda, is to be understood after this manner. Those modes, features, characters, exponents, by which the aggregates called 'name' manifests itself,—and if all these were absent, would there be any manifestation of a corresponding verbal impression in the aggregate called (bodily) form?"

"There would not, lord."

"Those modes, features, characters, exponents, by which the aggregate called (bodily) form manifests itself—if all these were absent, would there be any manifestation of an impression of sense-reaction in the aggregate called name?"

"There would not, lord."

"And if all those modes, &c., of both kinds were absent, would there be any manifestation of either verbal or sensory impression?"

"There would not, lord."

"Wherefore, Ananda, just that is the ground, the cause of contact, to wit, name-and-form."[35]

Perception *(saññā)* consists of sense perception, or better, resistance perception *(patigha-saññā)*, which is contrasted with designative perception *(adhivacana-saññā)*. Designative perception includes more than is usually associated with external perception as understood by Carvaka. By means of it, one is enabled to understand through speech the mental processes of another.[36]

Sense perception as an avenue of knowledge is inferior to intuition, yet

. . . sense-impressions are to be, not ignored, but recognized for what they are, and perfect equanimity attained respecting them. In other words he who can see and hear first sees and hears, then "recloses eye and ear." But for "one who is in the way *(patipado)*, the rising of any sense-awareness as such causes him 'loathing, abhorrence and disgust.'"[37]

34. By *name* and *form* are meant roughly *idea* and *object*.

35. *Dīgha-Nikāya* ii. 62, in *Dialogues of the Buddha*.

36. *Majjhima-Nikāya* i. 293, in *Further Dialogues of the Buddha*, trans. Lord Chalmers (Sacred Books of the Buddhists, Vols. V and VI [London: Oxford University Press, 1926-27]).

37. C. A. F. Rhys Davids, *The Birth of Indian Psychology and Its Development in Buddhism* (London: Luzac and Co., 1936), p. 185-86.

When one is concentrating on the path to salvation, the senses are loathsome because they may distract us from *patipado*. The attitude attributed to the Buddha in the Pali Canon is that although he (1) recognizes the existence of the external world and (2) holds that sense perception does give knowledge of the sense qualities of the objective flux, nevertheless, sense knowledge is of an inferior kind and to be generally shunned.

> When feelings tempt no more
> —at start or close—because
> all taste for them is dead,
> —then, doing nothing which
> his heart condemns, the sage
> is proof 'gainst things of sense.[38]

Sense knowledge is considered to be inextricably bound up with feeling and desire and hence is to be eliminated as far as possible because by its nature it is a stumbling block to the ultimate aim of the Buddha, the elimination of craving, through understanding or illumination.

It is necessary for disciples of the Buddha to have faith in the full enlightenment of the Buddha. Illumination is likely to come only if one hears the Buddha's doctrines expounded. The disciple is expected to examine everything from the standpoint of its reasonableness and then determine what is worthy of acceptance. Nevertheless, any pronouncements of the Buddha are considered worthy independently of the criterion of reasonableness. If the Buddha pronounces a doctrine, that doctrine is considered the highest truth. Illumination will come after one ponders the doctrines of the Buddha with attention and understanding. The Buddha himself insisted that the individual use his own mind in settling doubtful issues, not merely follow the Buddha's dicta.

Definite rules were laid down to assist members of any Buddhist community to determine the reliability and genuineness of propositions attributed to the Buddha. The genuineness of propositions was determined by the following four

38. Lord Chalmers, *Buddha's Teachings Being the Sutta-Nipata or Discourse Collection* (Harvard Oriental Series, Vol. XXXVII [Cambridge, Mass.: Harvard University Press, 1932]), 4, 2, 1, 778.

rules: (1) A proposition (passage) is genuine if a monk says he has heard it directly from the Buddha as being *Dhamma, Vinaya,* or teaching of the Buddha himself. It is then to be compared with the *Sutta* or shown to exist in the *Vinaya.* If there is no correspondence, then the proposition (passage) is to be rejected. (2) If a proposition is received by a monk from an assembly of monks with a leader, it is genuine. (3) A proposition received from a number of learned elders is genuine provided they have acquired the *Āgamas* and know by heart the *Dhamma,* the *Vinaya,* and the *Mātikā.* (4) Any proposition received from a single, learned elder who knows what is required in (3), above, is to be considered genuine.[39]

The discussions of the truth or falsity of propositions concerning objects or processes of the external world are considered profitless by the Buddha unless they are connected closely with the awareness of suffering and the alleviation of suffering. The truth is essentially what has been discovered by the Buddha to be vital to ethical considerations, although even the Buddha is reported to have argued against taking the word of the Buddha unqualifiedly. Learning the truth is a process of becoming aware of, of understanding, the discoveries of the Buddha about the nature of the world. There is no record in the Pali literature that the Buddha is often confronted by a truth discovered by anyone other than himself. For example, it is said:

> Then the Blessed One preached to them in due course; that is to say, he talked about the merits obtained by alms-giving . . . thus they obtained, while sitting there, the spotless Eye of Truth (that is, the knowledge):
>
> "Whatsoever is subject to the condition of origination is also subject to the condition of cessation."
>
> And having seen the Truth . . . dependent on nobody else for knowledge of the Teacher's doctrine, they thus spoke to the Blessed One: "Glorious, Lord! Glorious Lord!"[40]

39. *Anguttara-Nikāya* ii. 176, in F. L. Woodward (trans.), *The Book of Gradual Sayings (Anguttara-nikaya) or More-numbered Suttas,* Vol. I (Ones, Twos, Threes) (Pali Text Society, Translation Series, No. 22 [London: Oxford University Press, 1932]).

40. *Mahāvagga* i. 8, 3, in *Vinaya Texts,* trans. T. W. Rhys Davids and Hermann Oldenberg (Sacred Books of the East, Vol. IV [Oxford: Clarendon Press, 1899]).

The truth, evidently, is what has been laid down by the Buddha.

There is no evidence to suggest that the Buddha ever said that any kind of truth whatsoever could be discovered by one's relying on correspondence or coherence, or that these are ever considered methods by him. He believes that the truth depends upon his own authority. Other teachers, other schools, and other scriptures cannot be trusted. It may justly be held, we believe, that the Buddha is an intuitionist for himself and authoritarian for his disciples, despite his injunction to them to test all things by their own reason and experience. There is no reason to believe that he encourages the disciples to scrutinize carefully his own views. Epistemological discussions in later Buddhism, partly aroused by attacks on Buddhism by Brahman philosophers, become quite as sophisticated as those carried on in Europe by the Scholastics.

The view of the Buddha regarding truth is well shown in the story of the young men chasing the harlot who has stolen their possessions. The Buddha, when asked if she has passed his way, says:

> "Now what think you, young men? Which would be better for you; that you should go in search of a woman, or that you should go in search of yourselves?"
>
> "That, Lord, would be the better for us, that we should search of ourselves."
>
> "If so, young men, sit down, I will preach to you the Truth. . . ."[41]

The Truth here is "The Truth" of a body of propositions set down by the Buddha on the basis of his intuitions.

These Truths are laid down by the Buddha as the Four Noble Truths. They are fundamental to all forms of Buddhism.

> This, O Bhikkhus, is the Noble Truth of Suffering: Birth is suffering; decay is suffering; illness is suffering; death is suffering. Presence of objects we hate, is suffering; separation from objects we love, is suffering; not to obtain what we desire, is suffering. Briefly, the fivefold clinging to existence is suffering.[42]

The remaining Truths are as follows:

41. *Ibid.* i. 6, 33.
42. *Ibid.* i. 6, 19.

> This . . . is the Noble Truth of the Cause of Suffering: Thirst, that leads to re-birth, accompanied by pleasure and lust, finding its delight here and there. (This thirst is threefold), namely, thirst for pleasure, thirst for existence, thirst for prosperity.
>
> This . . . is the Noble Truth of the Cessation of Suffering: (it ceases with) the complete cessation of this thirst,—a cessation which consists in the absence of every passion. . . .
>
> This . . . is the Noble Truth of the Path which leads to the cessation of suffering: that holy eightfold Path, that is to say, Right Belief, Right Aspiration, Right Speech, Right Conduct, Right Means of Livelihood, Right Endeavour, Right Memory, Right Meditation.[43]

Whereas the Buddha appears to avoid most metaphysical questions because they do not lead to practical results, his silence on questions of theory of knowledge and truth theory suggests a continuation of the unawareness of such problems in the Upanishads.

In so far as the Buddha has a theory of truth, it may superficially appear to be naturalistic in the sense that his intuition of Truth is admittedly based upon experience in the world[44] rather than on supernatural revelation. It would be a mistake, however, to attribute to him a naturalistic view of experience itself. For him, the act of cognition implies no ordinary subject and no grasping of an object by a subject. The situation of knowing for the Buddha is this: there are senses, sense data, and images, in short, a "functional interdependence,"[45] rather than a grasping of an object by a subject.

There is no evidence that the Buddha thought it worthwhile formally to refute the authoritarian spirit of the Brahmans; indeed, he was perfectly willing to encourage this spirit around his teachings. The Buddhist had little respect for sense knowledge for it cannot lead to satisfactory ethical results. The intellect should be composed rather than stimulated in order to function smoothly toward salvation. Stimulation may be elim-

43. *Ibid.* i. 6, 20-22.

44. As opposed to being unconsciously based on experience. See William Howells, *The Heathens: Primitive Man and His Religions* (Garden City, N.Y.: Doubleday and Co., 1948), chap. ii.

45. Th. Stcherbatsky, *Buddhist Logic* (Bibliotheca Buddhica, XXVI [2 vols.; Leningrad: Academy of Sciences of the USSR, 1930]), I, 68.

inated, he thinks, by our ridding ourselves of the following: (1) restless, discursive work of the intellect; (2) zest, keen interest, and creative joy; and (3) all hedonistic consciousness.[46] The four stages of elimination *(Ārūpajhāna),* which would enable one to reach the goal of necessary inactivity of the intellect to assure the proper frame of mind for the reception of Truth, were:

(1) passing beyond consciousness of form to arrival in the conceptual sphere of space as infinite where previous consciousness of things visible pass away.
(2) reaching the conceptual sphere of consciousness as infinite.
(3) reaching consciousness of infinite nothingness.
(4) finally, reaching the stage where perception and feeling cease in the sphere of neither-percipience-nor-non-percipience.[47]

This ladder perhaps is reminiscent of that invoked by Plotinus in order that the individual might return to the realm of spirit, if we remember that his final aim is more intellectualistic than the Buddha's.[48]

The epistemology of the Theravadins is essentially non-naturalistic. Intuition is the highest source of knowledge. Although the role of sense perception is not denied, this role is clearly subordinate to the role of intuition or self-illumination. The authority of the Buddha has nearly the same force as intuition. This is seen from Theravada concern with establishing criteria by which to test assertions attributed to the Buddha. A hierarchy of propositions may be ordered, according to their degree of confirmation, as follows:

truest propositions: those intuited by the Buddha;
next truest propositions: those uttered by the Buddha;
less true propositions: those intuited by disciples of the Buddha;
even less true propositions: those uttered by the disciples based on their own rather than the Buddha's intuition;

46. C. A. F. Rhys Davids, *The Birth of Indian Psychology,* p. 111.
47. *Ibid.*, pp. 117-18.
48. See Plotinus, *The Enneads,* trans. Stephen MacKenna (London: Medici Society, 1926), Vol. I.

scarcely true propositions: those based on perception;
false propositions: those based on *sruti*.

We must bear in mind that for the Theravadins the notion of truth is closely bound up with what Westerners are likely to call "a real experience," something which, like revelation, jolts the individual.

There are important propositions and trivial propositions. With trivial propositions, the Theravadins are not ordinarily concerned. Propositions concerning our ordinary sense experience are trivial. Momentous propositions are different, however. We must have some reliable means of determining their truth. Such propositions are concerned almost exclusively with the meaning of morality and escape from ordinary mundane existence. For the most part, such propositions are value judgments and not descriptive ones. The problem of whether or not a factual proposition is true is not of much absorbing interest to the Theravadin.

Theravada Buddhist Metaphysics

Antispeculation

That the Buddha is aware of the philosophical speculation of his time can be seen from the *Digha-Nikaya* in which he discusses many metaphysical views of the world. He says:

> . . . Some recluse or Brahman is addicted to logic and reasoning. He gives utterance to the following conclusion of his own, beaten out of his argumentations and based on sophistry: "This which is called eye and ear and nose and tongue and body is a self which is impermanent, unstable, not eternal, subject to change. But this which is called heart, or mind, or consciousness is a self which is permanent, steadfast, eternal, and knows no change, and it will remain for ever and ever."[49]

Some of these views include the ideas of: (1) *eternalists,* believers in the eternity of the soul and the world, whom he quotes as saying to themselves:

> Eternal is the soul; and the world, giving birth to nothing new, is

49. *Digha-Nikaya* i. 13.

steadfast as a mountain peak, as a pillar firmly fixed, and though these living creatures transmigrate and pass away, fall from one state of existence and spring up in another, yet they are for ever and ever. And why must that be so? Because I, by means of ardour of exertion of application of earnestness of careful thought, can reach up to such rapture of heart that, rapt in heart, I can call to mind, and in full detail both of condition and custom, my various dwelling-places in times gone . . .[50]

(2) *semieternalists,* who believe the soul and world to be partly eternal and partly not, who say:

. . . that some being, on his own falling from that state (of self-possession), should come hither. And having come hither he should, as in the last case, become a recluse, and acquire the power of recollecting his last birth, but only his last one.

And he would say to himself: "Those gods who are not debauched by pleasure are steadfast, immutable, eternal, of a nature that knows no change, and they will remain so for ever and ever.

"But we—who fell from that state, having lost our self-control through being debauched by pleasure—we have come hither as being impermanent, mutable, limited in duration of life."[51]

There are also (3) *equivocators* or "eel-wrigglers," who are unable to make decisions concerning philosophical issues for fear of being wrong. These say: "I don't take it thus. I don't take it the other way. But I advance no different opinion. And I don't deny your position. And I don't say it is neither the one, nor the other."[52] Concerning the question of the existence of another world beyond this one, the "eel-wrigglers" hold simultaneously the following propositions:

1. There is another world.
2. There is not another world.
3. There both is, and is not, another world.
4. There neither is, nor is not, another world.[53]

Finally, (4) there are the *fortuitous-originists,* who believe in the accidental origin of the soul and the world. The Buddha interprets this accidental origin as meaning that they believe

50. *Ibid.* i. 31.
51. *Ibid.* ii. 8 f.
52. *Ibid.* ii. 24.
53. *Ibid.* iii. 2.

in origin "without a cause."[54] The recluse who holds this view says to himself: "Fortuitous in origin are the soul and the world. And why so? Because formerly I was not, but now I am. Having not been, I have come to be."[55] Other philosophers discussed by the Buddha are those concerned with belief in future life; annihilationists (Carvakas, Lokayatins?), who believe that the soul suffers dissolution with the body; and Ajivikas.

It is contrary to the aim of the Buddha to understand the world as a cosmos, to take delight in unraveling the mysteries of existence, or to take pleasure in sheer knowing as Aristotle would have it.[56] The attitude of the Buddha is primarily one of moral practicality and, hence, the search of knowledge except in the sense of "understanding" is essentially outside the path to salvation and nirvana. In spite of this practical aim, the Buddha was unable to avoid considerable speculation. To guard against it he specifically warned his followers to stop considering unprofitable questions. It is this attitude that gives to some of the *Dialogues* a quasi-positivistic flavor.

The whole tone attributed to the Buddha in the *Dialogues* implies that for practical reasons metaphysical questions should be shunned, although he himself first goes through a period of discussing them. He rejects such discussion as profitless to salvation. That he mentions these views at all is to impress on his disciples the uselessness of idle speculation. His insistence that ignorance is the cause of suffering must be interpreted as ignorance of the path of salvation and not as Aristotle would have meant it: as a lack of information about first principles or nature. Speculative knowledge without immediate practical consequences is unworthy of pursuit according to the Buddha.

The Buddha cannot be regarded "as a speculative thinker, but rather as a great teacher of mankind . . . differentiating between knowledge and ignorance."[57] Speculative knowledge

54. *Ibid.* ii. 31.

55. *Ibid.*

56. Aristotle, "Metaphysics," trans, W. D. Ross in *The Basic Works of Aristotle* (New York: Random House, 1941), A. 980a.

57. Hermann Oldenberg, *Die Lehre der Upanishaden und die Anfänge des Buddhismus* (Göttingen: Vandenhoeck and Ruprecht, 1915), p. 293.

is considered objectionable as not giving practical results. In the sayings attributed directly to the Buddha there is little that does not have immediate, practical bearing upon preparing one for salvation. His attitude toward speculation is shown in the following passage:

> Ajita: Prithee, take knowledge, and take mindfulness, and with them Individuality.
> I pray you say what lays this last to rest?
> The Lord: Your question, Ajita, I answer thus:—Ere Individuality can cease, th' informing mind must first be laid to rest.[58]

Two lines later in the same work, the Lord says: "To pleasure deaf, with undistracted mind, above phenomena . . ."[59] which clearly indicates the antispeculative bias of the Buddha. Phenomenal investigation leads nowhere, according to him, even though he held "insight into the nature of things"[60] to be a necessary qualification for the leading of the good life. An excellent example of what he means by futile speculation can be seen from the following quotation, in which the Buddha tells the son of Malunkya about metaphysical questions and the like:

> A man is hit by a poisoned arrow. His friends hasten to the doctor. The latter is about to draw the arrow out of the wound. The wounded man, however, cries: "Stop: I will not have the arrow drawn out until I know who shot it, whether a warrior or a Brahman, a Vaisya or a Sudra, to which family he belonged, whether he was tall or short, of what species and description the arrow was," and so on. What would happen? The man would die before all these questions were answered. In the same way the disciple who wished for answers to all his questions about the beyond and so on, would die before he knew the truth about suffering, the origin of suffering, the cessation of suffering and the way to the cessation of suffering.[61]

The External World

The external world for the Buddha was a world of stuff and

58. *Sutta-Nipāta,* 1036-37, in E. W. West, *Pahlavi Texts: The Dhammapada,* trans. F. Max Müller; *The Sutta-Nipata,* trans. V. Fausböll (Sacred Books of the East, Vol. XII [New York: Charles Scribner's Sons, 1901]).

59. *Sutta-Nipata,* 1039.

60. C. A. F. Rhys Davids, *Buddhist Psychology* (London: George Bell and Sons, 1914), p. 130.

61. *Majjhima-Nikaya,* 63, quoted by Winternitz, *A History,* II, 70-71.

not one of ideas merely, although this does not imply an open naïve realism. Schopenhauer, Franke, and Kern, on the contrary, believed that the early doctrine of Buddhism, which we are here considering, was like the later Mahayana doctrine. These men have held that the Buddha recognized the external world as a world of appearance, dependent for its existence on the experiencing intellect. Defenders of such a position hold, furthermore, that since the Buddha denies the existence of the self, and since an object to exist must exist *for* something, the early views attributed to the Buddha by implication must be idealistic.[62]

To say that the Buddha warned against the dangers of highly regarding sense experience is not to say that he denied substantial, nonmental existence. The objects of sense exist independent of a knower according to the Buddha. A form *(rupa)* or object[63] (of thought) as opposed to a name *(nāma)* or idea cannot be profitably examined as to specific peculiarities yet nevertheless exists. Objects make up the external world of which our bodies are a part.

> Nothing can contradict more effectively the idea of the mention of meditation on the void, as meaning the unreality of existence, than the Culasunnata Sutta of the *Majjhima;* the process consists of meditation, first on the conceptions of man and village, thence to the more abstract earth as such, then to the boundlessness of space, then to the infinity of consciousness . . . and thence to liberation; in this state there is voidness of defilements (assava) of desire, becoming and ignorance, but non-voidness regarding the corporeal body, whose reality thus stands out in the clearest way.[64]

Keith undoubtedly means here that although one may ultimately meditate on the void, one begins by meditating on the objects close at hand. As an expert one may meditate on the void, but this does not erase the reality or existence of the original objects of meditation.

The two kinds of mental act, impinging upon the question of the realistic existence of the external world, are perception with resistance *(patigha)* and perception without resistance

62. Keith, *Buddhist Philosophy in India,* pp. 47 f.

63. Yamakami Sōgen, *Systems of Buddhistic Thought* (Calcutta: University of Calcutta Press, 1912), p. 143.

64. Keith, *Buddhist Philosophy in India,* pp. 52-53.

(sanna). The first of these has to do with impressions of external objects and the second with impressions associated with names, as in asking questions and learning the thoughts of another by speech. Overlooking this dichotomy has led Waller and T. W. Rhys Davids to hold mistakenly that Theravada Buddhism regarded the world as (1) being dependent upon consciousness or (2) actually being within the individual in some sense.[65]

Once having agreed that the Theravadins believed in an independently existing external world, we now raise the question as to its character. The most salient feature of it is that it is a process in the most radical sense of that term. The world, in a physical sense, is an objective, external process or stream of discrete events occurring without any particular direction or pattern. The impermanent process is without limitation so far as is known. To call it eternal would be an inadmissible metaphysical conclusion. There is no notion of an all-embracing nature in flux but merely the practical realization that nothing in our daily lives is permanent. Evidently this view is as naïve, and at the same time as sophisticated, as the view attributed to Cratylus, of whom it is said that he maintained that one cannot step in the same river *once*. As individual men we are poignantly aware of constant change which contributes greatly to the misery of all men.

This world consists of the four elements:[66] earth, air, fire, and water, and sometimes a fifth, ether *(ākāśa)*.[67] Ether is occasionally regarded as one of the original elements and occasionally as a derivative of them. Every material thing is a compound that ultimately passes away. Such things as the human body may persist relatively unchanged for a considerable time, yet they are subject to corruption and disintegration. Later Buddhism, refining this doctrine, developed the doctrine of momentariness in which it is held that no permanence whatsoever can be established on the basis of experience or reason. The world is made of matter, some of

65. *Ibid.*, pp. 54f.

66. Brajendranath Seal, *The Positive Science of the Ancient Hindus* (London: Longmans, Green and Co., 1915), p. 92.

67. Ether plays the role of space as an all-embracing element. See Stcherbatsky, *Buddhist Logic,* I, 85.

which is external to us and some of which composes the empirical individual as an aggregate *(skandha)*. The relationship between body and mind, or body and spirit, is not raised.

The universe consists of numerous world systems which contain an earth, heavens, and hells. Each world system is composed of three regions *(avacaras):* (1) the realm of desire *(kāma)*, (2) the realm of matter *(rupa)*, and (3) the realm without form *(arūpa)*. The realm of desire contains eight or more hells, animals, ghosts, demons, and the like.[68] The realm of matter contains gods free from desire and men who practice the Four Meditations and who will attain nirvana. The realm without form or matter contains those who carry out Formless Meditations, whose minds are free from any thought except of infinite space, and those who have attained to neither ideation nor nonideation. The Buddha believes in the periodic dissolution and re-evolution of the universe and its world systems.

Doctrine of the Self

The early Buddhists inherit from Upanishadic speculation the notion that the self is autonomous, possessed of bliss, and permanent. It can be seen immediately that this view might be unsatisfactory in the light of the Theravadin claim that the world is in process and hence transitory.[69] Nothing permanent can be discovered in the empirical world, and, on the other hand, if anything permanent could be found, then it could not

68. Keith, *Buddhist Philosophy in India*, pp. 92-93. Recently, Franklin Edgerton has taken to task Helmut von Glasenapp's view (1958) that the Buddha probably taught "a complete systematic metaphysics." Hermann Oldenberg's contention (1881) that the Buddha did not teach such a view is upheld by Edgerton, "Did the Buddha Have a System of Metaphysics?," *Journal of the American Oriental Society*, LXXIX (June 15, 1959). Edgerton says on p. 84, and we agree with him wholeheartedly, that: "To me, at least, it would seem also 'an inversion of natural development' to attribute a metaphysical system to the Buddha, which would then, in my opinion, make it necessary to assume that such texts as the Malunkya Suttanta were later creations of 'Ceylonese monks,' who for some strange reason wanted to deny to the Buddha the metaphysical system he is supposed to have originally held. . . . The human Buddha, which von Glasenapp so sensibly discovers in the oldest elements of the sacred tradition, was, I think, surely as indifferent to metaphysics as he was untouched by supernaturalism."

69. Keith, *Buddhist Philosophy in India*, p. 75.

be subject to modification. In any case no entity answering to Upanishadic description of the self is recognized by the Theravadins.

One of the prime causes of misery itself is delusion concerning the self; the surest way of continuing unhappy states is to aim at the welfare of the self. How can one aim at the welfare of what is held to be nonexistent? According to the Buddha in the so-called Sermon at Benares, the situation is as follows:

> The body (Rupa), O Bhikkus, is not the self. If the body, O Bhikkus, were the self, the body would not be subject to disease, and we should be able to say: "Let my body be such and such a one, let my body not be such and such a one." But since the body, O Bhikkus, is not the self, therefore the body is subject to disease, and we are not able to say: "Let my body be such and such. . . ."[70]

The Buddha goes on to apply the same argument to the other four aggregates constituting the mental nature of man: feelings, perceptions, dispositions, and intellect. None of these may be equated with the self.[71] Realizing that these are not the self,

> . . . a learned noble hearer of the word becomes weary of body, weary of sensation, weary of perception, weary of the *Samkharas,* weary of consciousness. Becoming weary of all that, he divests himself of passion; by absence of passion he is made free; and he realizes that rebirth is exhausted . . . and that there is no further return to this world.[72]

The conclusion, for Theravada and Mahayana Buddhism alike, is that there is no self.

The doctrine that there is no self or soul is not consistent with the belief that individual action, in some sense, occurs and that remembrance of former births is possible. There is reason to believe that even in the early schools there is recognition that some principle of continuity must be shown, in spite of the orthodox view that the individual is a collection of changing aggregates. There is a tendency in some passages[73]

70. *Mahavagga* i. 6, 38.
71. *Ibid.* i. 6, 39. See also *Digha-Nikaya* ii. 66f.
72. *Mahavagga* i. 6, 47.
73. Keith, *Buddhist Philosophy in India,* pp. 81f.

to regard the self or individual as either the intellect, compared with the guardian of a city, or a continuity of consciousness in change throughout life, which continues after death. Death and the new life are simultaneous. The problem of memory, which becomes insuperable on this view of the individual as consisting strictly of changing aggregates, is not discussed by the Buddhists of the early Canon.

It may be said in general that mental phenomena are conceived of as intellect, which represents the unity to be found in experience. The intellect, however, is not a soul nor has it any connection with soul, unlike the soul *(atman)* to be found in the Upanishads.[74] Although there is not a soul there is an aggregate made up of the five *skandhas* (bodies), which are: (1) *rupa* ("form or shape," sometimes "subject to transformation"); (2) *vedanā* ("feeling," which may be pleasant, unpleasant, or neutral); (3) *saṁjñā* ("conception" as implying something more than "sense perception"; McGovern suggests "cognitive assimilation"[75]); (4) *saṃskāra* (originally "volition," but later it becomes a catchall for fifty-one other concomitant factors); and (5) *vijñāna* ("consciousness" or "cognition" or "awareness" in the broadest sense of that term; specifically it lacks the hedonic elements attributed to feeling *[vedana])*. The *skandhas* laid out in the fivefold scheme are as follows:

1. the body, including sense organs;
2. consciousness, or awareness, reception of the sense impressions transmitted by the sense organs;
3. resultant feeling of like or dislike of these impressions;
4. ideation or the formation of mental images concerning the nature of the external world from which sense impressions are derived, including the classification (naming) of those objects which are pleasant and those which are unpleasant;
5. volition or will with respect to choosing as far as possible those objects which are pleasant and those which are unpleasant. Later, as we have seen, mental activ-

74. William Montgomery McGovern, *A Manual of Buddhist Philosophy* (London: Kegan Paul, Trench, Trubner and Co., 1923), I, 82.
75. *Ibid.*, p. 86.

ities other than volition were added, but were placed in the same category.[76]

The Supernatural

The primary ethical concern of the Buddha, the salvation of the individual in this life, does not lead him to much speculation concerning the existence of a world completely different from the world in which he lives. If we accept the view that he believes in several worlds, there is no reason to believe that any of these worlds exists outside of the universal system in which this world, populated by human beings, is a part.

The Buddha never denies the existence of the traditional gods of India, such as Indra, Agni, and Varuna;[77] on the other hand, he gives no assurance that he believes these exist. For all practical purposes his position is atheistic, as is the position of the Pali Canon, following the alleged silence on the efficacy of divinity. Man must depend upon himself for salvation, not upon a divine dictate or divine intercession. In spite of his lack of speculative concern with the operation and constitution of the natural world, he appears to have even less concern with a supernatural one.

George Sarton points out, partly with justice, that

> When I spoke of Buddha . . . I suggested that the religion or wisdom which he explained was not incompatible with scientific research. Indeed no religion is nearer to the religion of science than the pure original Buddhism. Unfortunately, the true scientific spirit of Buddhism was made barren by excessive otherworldliness, by lack of curiosity.[78]

It is true that early Buddhism was not incompatible with scientific research in the sense that it rejected *sruti* and Brahman-

76. *Ibid.*, p. 91.

77. A. Barth, *The Religions of India* (3rd ed.; London: Kegan Paul, Trench, Trubner and Co., 1891), p. 109.

78. See George Sarton, *Introduction to the History of Science* (Baltimore: Carnegie Institution, 1927-48), II, ii. Modern Theravadins have generally been receptive to science, and, in the nineteenth century, a leading priest in Ceylon, Sumangala, placed Darwin among his saints. See Anatole France, *On Life and Letters*, trans. D. B. Stewart (3rd ser.; London: The Bodley Head, 1922), p. 363.

ical magic. On the other hand, the attitude of the Buddhists was certainly not favorable to growth in natural empirical knowledge. In this they are more like the Stoics than they are like the Ionians. Their "otherworldliness" does not have a sacred divine object, which differentiates them, in this regard, from the Stoics.

Theravadin followers of the Buddha regard him as a natural historical person without any divine attributes or connections, although it is evident that they believe it unlikely that any human can approach him in wisdom and goodness. This Theravadin view is in sharp contrast to the predominant later Buddhist view that the Buddha is no particular historical man, but an ultimate principle or a cosmic unity.[79] It is this later view that accounts for the belief that there is a supernatural principle in all forms of Buddhism. This ultimate principle, which has eternal and innumerable qualities, yet devoid of all characters, is described in the *Ava-taṁśaka-sūtra* as follows:

> It is not an individual reality, it is not a false existence, but is universal and pure. It comes from nowhere, it goes to nowhere; it does not assert itself, nor is it subject to annihilation. It is for ever serene and eternal. It is the One, devoid of all determinations. . . . Though it is the treasure of intelligence, it is void of all particularity. There is no place in the universe where this body does not prevail. The universe becomes, but this body for ever remains. It is free from all opposites and contraries, yet it is working in all things to lead them to Nirvana.[80]

There is some reason to believe that the Buddha of the Pali Canon would have rejected such an interpretation of himself as unfounded and absurd.

A question immediately arises as to the apparent contradiction between the Buddha's presumably believing that man can gain salvation in the natural world without supernatural aid and at the same time believing in heavens, hells, various demigods, and demons. We cannot deny the nonnatural appearance of these. The explanation for this may be as follows: (1) It is not impossible that the Buddha entertained two contradictory propositions (beliefs) at the same time. (2) The

79. S. B. Dasgupta, *An Introduction to Tantric Buddhism* (Calcutta: Calcutta University Press, 1950), p. 12.

80. Quoted by S. B. Dasgupta, *ibid.*, pp. 12-13.

Buddha may have regarded, as seems likely, heavens, hells, and the like as part of "nature," since up to his time no great school had shown the sharp division between what we today call the natural and the supernatural. Both (1) and (2) may be correct, but our greater concern is with (2). Even the Carvakas never really discussed the division between the natural and supernatural, although such a division is strongly implied by their statements.[81]

A possible explanation of the view of the Buddha concerning the existence of heavens, hells, and demigods, and at the same time showing a complete lack of concern for deity follows the lead of Durkheim. In his discussion of totemism, Durkheim shows that primitive people make no clear-cut distinction between the realm of what we today call "the natural" and "the nonnatural."[82] Just as the tribes whom Durkheim discusses include not only men, but many other elements in the universe (and sometimes of the nonuniverse), so the society of which Buddha was a member may be thought to have demigods and demons. There is no reason to believe that the Buddha thought in totemistic terms such that the society of which he was a member included crows, the moon, and smoke as did the Mount Gambier tribe of Australia. Nevertheless, it is not unlikely that the social world as conceived by the Buddha contained demons and demigods. We hasten to add that the early Buddhist view of cosmology is considerably more sophisticated than that of the Australian tribesmen. This does not make it any more natural, needless to say.

Doctrine of Causality

The starting point for the Buddhist notion of causality is generally held to reside in the brief analysis of misery contained in the Four Noble Truths,[83] particularly the Second, which has been quoted earlier. It reads, in paraphrase, that the cause of the origin of misery is desire, leading to rebirth and the continuing round of existence:

81. See chapter 4 above on the supernatural.

82. Émile Durkheim, *The Elementary Forms of the Religious Life*, trans. J. W. Swain (London: George Allen and Urwin, 1930), p. iii. Chattopadhyaya in *Lokāyata* devotes some forty pages (76-122) to the problem of totemism in the incident of "The Chanting Dogs," to be found in the *Chandogya Up.*, I, 12.

83. See the quote from *Hindu Medicine* by Henry R. Zimmer on p. 145.

"Bhanta Nagasena," said the king, "when you say 'round of existence,' what is that?"

"Your majesty, to be born here and die here, to die here and be born elsewhere, to be born there and die there and be born elsewhere,—the round of existence."[84]

Following the doctrine, called "Dependent Origination" by H. C. Warren,[85] there is a chain of causes, each link depending upon a previous one, beginning with ignorance. The important links of the chain are conceived as follows:

On ignorance depends karma;
On karma depends consciousness;
On consciousness depend name and form;[86]
On name and form depend the six organs of sense;
On the six organs of sense depends contact;
On contact depends sensation;
On sensation depends desire;
On desire depends attachment;
On attachment depends existence;
On existence depends birth;
On birth depend old age and death, sorrow, lamentation, misery, grief, and despair. Thus does this entire aggregation of misery arise.[87]

On the other hand, with the cessation of ignorance, karma ceases and thus the entire chain is broken. Ignorance, as is pointed out by Keith,[88] has no cosmic significance, as does Love or Hate in Empedocles,[89] but only a limited significance. The entire chain of causation shown above also ap-

84. *Milindapañha,* 77, 8, cited by Henry Clarke Warren, *Buddhism in Translations* (Harvard Oriental Series, Vol. III [Cambridge, Mass.: Harvard University Press, 1909]), p. 232.

85. Warren, *Buddhism,* p. 168.

86. In the Upanishads, "While the *nāma* is the inner power of the individual being or thing, the *rūpa* is its sensuous appearance" (Maryla Falk, *Nāma-Rūpa and Dharma-Rūpa* [Calcutta: Calcutta University Press, 1943], p. 19). In the Buddhist *Visuddhi-Magga,* chap. xvii: "By 'Name' are meant the three Groups beginning with Sensation [i.e., Sensation, Perception, and the Predispositions]; by 'Form,' the four elements and form derivative from the four elements" (Warren, *Buddhism,* p. 184).

87. *Saṁyutta-Nikāya* xxii. 90, 16, in Warren, *Buddhism,* p. 166.

88. Keith, *Buddhist Philosophy in India,* p. 99.

89. Empedocles, Fragment 26, in Hermann Diels, *Die Fragmente der Vorsokratiker,* ed. Walther Kranz (7th ed.; Berlin: Wiedmannsche Verlagsbuchhandlung, 1954), I, 322f.

pears to have only limited application, and that to human, perhaps animate, affairs.

The Four Noble Truths, nevertheless, have a possible naturalistic slant as viewed by Zimmer and prior to him by Sōgen (1912). These truths correspond to the four successive problems the early Indian physician was taught to face in the treatment of a patient. The physician is instructed to ask himself four questions. Three of these are asked so as to reach a proper diagnosis and the fourth to inquire into the proper therapy. The four questions asked by the physician are as follows:

> *First* of all, are the complaints of the patient based on some real suffering; has he a real disease or is he only seemingly ill? If the answer is that he is ill, the physician proceeds to inquire into the particular nature of the sickness, answering the *second* question: with what kind of suffering is the patient afflicted and what is its origin? The *third* step, completing the diagnosis, is to decide whether the disease can be cured or not. If not, the doctor is supposed to withdraw. . . . But if the third question is answered in the affirmative and the disease seems curable, then the doctor will ask himself the *fourth* and last question: what kind of treatment is indicated for this particular ailment?[90]

The Buddha, instead of adopting the attitude of a priest, assumes the standpoint of a medical practitioner. It is no accident that he is called "The Healer" or "The Physician." This medical approach was later adopted also by Yoga.[91]

The doctrine of causality, although it deals incidentally with physical elements as well as mental ones, is essentially mental and specifically moral in character. It has no cosmic or cosmological significance in the sense of referring to "all that is the case." Causality, as treated by the Buddha, is cosmic only in the sense that it deals with cosmic morality, and not with the cosmos as a physical process containing inanimate as well as animate elements. It leaves unanswered any question concerning the origin of ignorance. One can discern, however, that with the destruction of ignorance, the misery of

90. Henry R. [Heinrich R.] Zimmer, *Hindu Medicine* (Baltimore: Johns Hopkins Press, 1948), pp. 33-34. See also Y. Sōgen, *Systems*, pp. 69-70.

91. H. Kern, "Manual of Indian Buddhism," *Encyclopaedia of Indo-Aryan Research* (1896), cited by Zimmer, *Hindu Medicine*, p. 35.

the world disappears, but then only for one individual. It remains for all others.

Ignorance, obviously, is not some principle or stuff that can be destroyed in some general fashion by social control, but rather it must be destroyed for each individual by means of the knowledge (enlightenment) of that individual. Ignorance cannot be destroyed by the growth of sensible or discursive knowledge. It is destroyed by realization of the doctrine of the Buddha by which he himself obtained enlightenment and final release.

Within the context of the chain of causality itself, a difficulty arises, namely, that while consciousness depends upon name and form (a body), name and form depend upon consciousness, for the *Digha-Nikaya* expressly states that if consciousness did not enter the womb, there would be no living embryo.[92] Nor does the chain assert invariable dependence and succession, for at a high stage of development consciousness may appear in a formless and immaterial sphere.[93]

The explanatory value of the chain of causation is extremely limited. We have seen that it has no cosmic applicability for it leaves out not only inanimate nature, but most of animate nature as well, discussing only causality as it applies to human beings. Here again is evidence of the "practical" nature of the Buddha's intentions, which are concerned not with explanatory hypotheses about the nature and operation of the world or cosmos but with salvation. This concern is essentially nonnatural in its implications. Even within the limited sphere of human action, absolute regularity of causation is denied by an insistence upon free will, for upon free will rests the possibility of release from misery.

With later Buddhist speculation, the doctrine of Dependent Origination becomes refined to where reality consists of point-instants arising in "functional dependence upon a 'totality of causes and conditions' which are its immediate antecedents."[94] "Whatsoever exists is a cause, cause and existence are synonyms."[95] These point-instants are centers of efficiency and

92. *Digha-Nikaya* ii. 63.
93. Keith, *Buddhist Philosophy in India*, pp. 101f.
94. Stcherbatsky, *Buddhist Logic*, I, 119.
95. *Ibid.*

dynamic rather than static. We are concerned, however, with only the earlier doctrine, which is relatively simple, expressed in the formulation: "Since *this* exists, *that* appears."

Both Keith and Stcherbatsky believe that the Buddha, when discussing the problem of freedom, had Gosala constantly in mind since Gosala preached a doctrine of determinism, denying free will and moral responsibility. That Gosala's doctrine would be repugnant to the Buddha, for whom cessation of misery depended upon the free choice of the individual to be free of ignorance, cannot be doubted. Nevertheless, the Buddha also believed in a kind of determinism associated with empirical existence. Movement and life are a process characterized by a kind of necessity, but a necessity governed by volitions, some weak and some strong. Only strong volitions are praiseworthy or blameworthy as falling under the law of karma. The free will is essentially a strong will, for weak volition has the character of being nonmoral or semi-mechanical.[96] The ramifications of this doctrine will be discussed in the next section concerned with the ethical theory of the Buddhism of the Pali Canon.

The chain of causation in which the individual is involved may be pictured as a kind of merry-go-round including: past life, present life, and future life. One may step from the vertically moving black horse (the past) to the pink one (the present). These steps are continuous and never-ending unless stopped by enlightenment. The unenlightened may be conceived as being on a larger and larger merry-go-round which will continue to increase with each successive birth. The past of the merry-go-round contains more and more past lives; the future promises more and more lives; the present remains fairly constant. Once ignorance is recognized and enlightenment occurs, the merry-go-round stops and one gets off. This simile is superior to a static diagram for by it one may picture the continuous process of the chain of causation seen as never-ending and never-beginning, except by the moral state of complete enlightenment.

No Buddhist holds that there may be just a single cause of anything; there must always be two or more causes to pro-

96. *Ibid.*, p. 134.

duce an effect. Such a notion goes counter to the tendency in Brahmanism, and what are called the Hindu schools, to find some first cause. The Buddhists never discuss a first cause because they simply do not believe that asking, "What is the first cause?" makes any sense. Therefore any tendency to infinite regression in explaining the origin of the world or any particular in the world is absent in Buddhism. The atheism of Buddhism, then, is not of the kind to be found in Jainism or in Western philosophy where it is essentially associated with denying that a first cause may be found.

Theravada Buddhist Ethics

Of critical and analytic ethics there is little in discussions of the Buddha and his early disciples. An example of the quality of analysis may be seen in the following quotation: "What sort of person is one having good inclination? Here is a certain person who, morally good and of virtuous habits, serves, follows and reveres another person of the same nature:—he is said to be a person having good inclination."[97] There is no evidence that the meaning of ethical terms or the worth and consistency of disagreeing systems of ethics is ever a topic of discussion as it was for the Stoics or even for the Epicureans.

In discussing Buddhist metaphysics, we also touched upon certain ethical issues because the Buddha considered ethical considerations to be primary. His greatest concern was the salvation of the individual. No other philosopher of his time in India originated such a voluminous or suggestive ethics or one that finally gained so many adherents. Buddhist ethics, we shall maintain, was primarily philosophical rather than religious in the period we are discussing, although at a later date, perhaps after A.D. 200, it became religious in the sense of adopting a sacred object, the transcendental body of the Buddha.

The first step toward realizing the goal of Buddhist ethics is understanding the problem with which the Buddhist holds the individual to be faced. This understanding consists in the Four

97. *Abhidhammapiṭaka* iv, quoted by Winternitz, *A History*, II, 169.

Noble Truths, which may be condensed as follows: (1) realizing that misery exists; (2, 3) realizing that misery has an eradicable cause; and (4) realizing that misery will cease after one has pursued the Eightfold Path. These are the Four Noble Truths and the Eightfold Path reduced to their simplest terms. Conduct *(sīla)*, concentration *(samādhi)*, and intuition *(panna)* are required for salvation and final release just as they are required for the beginning of the path. At the time of the Buddha, the development of an individual from a condition of ignorance to one of wisdom is as follows:

1. The appearance of a Buddha and his preaching.
2. The awakening of a hearer, and his entry into the Order.
3. His self-training in act, word and speech.
4. The minor details of morality which he observes.
5. The absence of fear, confidence of heart thence resulting.
6. The way in which he learns to guard the door of his senses.
7. The constant self-possession he thus gains.
8. The power of being content with little, with simplicity of life.
9. The emancipation of heart from the five hindrances—covetousness, illwill, sloth of body and mind, excitement and worry, and perplexity.
10. The resulting joy and peace that he gains.

. . .

16. "Then estranged from lusts, aloof from evil states, he enters into and remains in the First Rapture—a state of joy and ease, born of detachment, reasoning and investigation going on the while."[98]

The attitudes of the various Buddhists, of course, are different, some of them daring to suggest that what is good about nirvana is the happiness and absence of anxiety possible in that state. Others condemn sensual pleasure in terms St. Paul might have felt envious of:

A butcher throws before a dog tormented by hunger, a bare and fleshless bone with which he cannot satisfy his hunger—like such a bare bone are the sensual pleasures, full of torment and sufferings, out of which evils arise. . . . The sage shrinks back before sensual pleasures as from a pit filled with glowing coals.[99]

98. *Digha-Nikaya* vi. 15f.
99. *Majjhima-Nikaya*, 54, quoted by Winternitz, *A History*, II, 72.

Another brief statement, of a comparable persuasion, states that "the greed of the man who takes pleasure in the things of this world, which are but fetters," is like an oil lamp never getting enough oil.[100]

Rules of conduct were specifically laid down for the monks who were followers of the Buddha. Most of these were borrowed from Brahmanical tradition and consisted of such prohibitions, everywhere familiar in India, as not-killing, not-stealing, not-committing-adultery, not-fornicating, not-lying. These prohibitions are developed in the following way: the injunction of not-killing is extended to apply to all living creatures, and the injunction of not-lying is developed to include friendly speech, discourse to bring about agreement rather than disagreement. The Buddha attempts to refrain from speech which gives others offense even if what he says is regarded as unqualifiedly true. One is enjoined to have a friendly attitude toward all living things, at times to feel the deeper emotion of love, not for the sake, usually, of producing social good or general contentment, but as a counteragent to passion. Love also is considered in the light of a universal feeling counteracting particular passions.

The Buddhist primarily desires self-mastery which enables him to endure injuries and insults, seeking no revenge for injuries to himself. His monkish life enjoins watchfulness over the senses, whether they appear under bodily or ideational forms, to see that acts he performs will decrease rather than increase karmic aftereffects. The best life is a simple one with a bare minimum of clothes and food, increasing mindfulness, and self-possession.

Those of my disciples, Five-crest, who in all points wholly understand my teaching, they from the destruction of the Deadly Taints have by and for themselves understood, realized and attained to, even in this life, freedom from taint, liberty of heart, liberty of intellect. Those who do not in all points wholly understand my teaching, some of them, in that they have broken away the five Fetters belonging to the Hither Side, are reborn without parents, where they will utterly pass away, being no more liable to return to this world. And some of them, in that they have broken away three (other) Fetters, and have

100. *Samyutta-Nikaya* xii, 53, *ibid.*, p. 73.

worn down passion and hate and dulness, become Once-Returners, who after once returning to this world shall make an end of ill.[101]

The system of ethics outlined resembles Stoicism more than any other system of conduct with which the Westerner is familiar. Some of this similarity disappears when we add the different forms of meditation chosen by Buddhists to speed them on their way to salvation. There is reason to believe that not only these, but other forms of yogic practice were common in India at the time of the Buddha, particularly among those adopting some form of Brahmanism.[102] The philosophers of the Upanishads attempted to realize the absolute by divorcing themselves from the empirical by means of trances that would approximate the beatific results gained in dreamless sleep. One is struck immediately by the similarity between the Stages of Deliverance of Buddhism and the Platonic Ladder of Love.[103] The stages, as stated by the Buddha to Ananda, include:

"A man possessed of form sees forms—this is the first stage of deliverance.

"Unaware of his own form, he sees forms external to himself—this is the second stage of deliverance.

"With the thought 'it is well', he comes intent—this is the third stage of deliverance.

"By passing quite beyond all idea of form, by putting an end to all idea of multiformity, he, thinking 'it is all infinite space', reaches (mentally) and remains in the state of mind in which the idea of the infinity of space is the only idea that is present—this is the fourth stage of deliverance.

"By passing quite beyond all idea of space being the infinite basis, he, thinking 'it is all infinite reason', reaches (mentally) and remains in the state of mind to which the infinity of reason is alone present—this is the fifth stage of deliverance."[104]

With the fifth stage we are perhaps at something like the last rung of Plato's ladder, where the individual achieves the vi-

101. *Digha-Nikaya* ii. 250 (Mahā-Govinda Suttanta), 62.

102. Louis de la Vallée-Poussin, *La dogme et le philosophie du Bouddhisme* (Paris: Gabriel Beauchesne, 1901), p. 361.

103. Plato, "Symposium," in *The Dialogues of Plato,* trans. B. Jowett (New York: Random House, 1937), II, 201f.

104. *Digha-Nikaya* ii. 112 (Mahā Parinibbāna Suttanta), iii. 33.

sion of a vast sea of beauty, but the Buddha discovers stages beyond this:

> "By passing quite beyond the consciousness of the infinity of reason, he, thinking 'nothing at all exists', reaches (mentally) and remains in the state of mind to which nothing at all is specially present—this is the sixth stage of deliverance.
>
> "By passing quite beyond all idea of nothingness he reaches (mentally) and remains in the state of mind to which neither ideas nor the absence of ideas are specially present—this is the seventh stage of deliverance.
>
> "By passing quite beyond the state of 'neither ideas nor the absence of ideas' he reaches (mentally) and remains in the state of mind in which both sensations and ideas have ceased to be—this is the eighth stage of deliverance.
>
> "Now these, Ananda, are the eight stages of Deliverance."[105]

Some of the techniques adopted to secure self-hypnosis and hallucinations include regulated breathing, meditation upon impurity at a cemetery to insure realization of the vanity of the flesh, and meditations that begin with the feeling of friendliness to all creatures, sympathy, and, finally, absolute indifference of feeling *(upekkhā)*.[106] One may attain to a breaking of the causal chain by means of the trance, but the trance is not a necessary condition.

The difference between the mystical states achieved by the Buddhist monks and those achieved later by Christian ascetics is that the latter recognize the operation of the grace of God in their meditations, whereas the former recognize nothing supernatural in theirs. The final aim of the mystical exercises also differs: the Christian wishes the peace associated with the union with God, whereas the Buddhist desires the final intuition of the Four Noble Truths and the awareness that there will be no rebirth.

Nirvana can be achieved in this life. With its realization, the monk is freed from the defilements of desire, becoming, false views, and ignorance. The outward form of the individual who has attained nirvana remains until death. At death, consciousness ceases; there is no more transmigration for with the attainment of nirvana the chain of causation is permanently

105. *Ibid.*
106. Keith, *Buddhist Philosophy in India*, p. 123.

broken. Nirvana is not simply a state of mind but, in some sense, nonmental existence, although having a different status from empirical existence. The nirvana element *(nibbāna-dhātu)* may be thought of as co-ordinate with the ether *(akasa)*, which is uncreated and infinite, or, as the uncompounded element, distinguished sharply from the phenomenal world.[107]

The nonnatural, nirvana state of mind is happiness or holiness (nonsupernatural) if these be understood to have no empirical implications. Sāriputta, when asked how one could feel happiness in a state which presumably allows no feeling, says that it is happiness just because there is no feeling! A young woman who asks the future Buddha, "What is nirvana?" receives the following apocryphal response:

> When the fire of lust is extinct, that is Nirvana;
> When the fires of hatred and infatuation are extinct, that is Nirvana; when pride, false belief, and all other passions and torments are extinct, that is Nirvana. She has taught me a good lesson. Certainly, Nirvana is what I am looking for. It behooves me this very day to quit the household life, and to retire from the world in quest of Nirvana. I will send this lady a teacher's fee.[108]

Another passage describes nirvana as a state of great security:

> We may have, O priests, the case of one who, himself subject to birth, perceives the wretchedness of what is subject to birth, and craves the incomparable security of a Nirvana free from birth; himself subject to old age . . . disease . . . death . . . sorrow . . . corruption, perceives the wretchedness of what is subject to corruption, and craves the incomparable security of a Nirvana free from corruption.
>
> This, O priests, is the noble craving.[109]

The difficulty involved in describing nirvana without contradiction suggests that nirvana is ineffable, like any other mystical state. The several attempts to give nirvana empirical clothing plunge into contradiction.

107. *Ibid.*, p. 128.
108. *Jātaka* i. 60, 20 f., in *Buddhist Birth Stories or Jataka Tales (The Jatakatthavannana)*, trans. T. W. Rhys Davids (Trubner's Oriental Series [London: Trubner and Co., 1880]).
109. *Majjhima-Nikaya*, sutta 26, in *Dialogues of the Buddha.*

The state of nirvana is unlike anything with which we are familiar in Western philosophy and religion. It combines a kind of humanism with complete negativity. The humanism consists in the Buddhist's ability to achieve bliss or emptiness by his own efforts. It is not easy to conceive of such a state. We should perhaps have something like it if we imagine Meister Eckhart's mystical experiences emptied of their divine content. But what would this leave us? Certainly a physical experience and/or a mental experience of some kind. Then suppose that these physical and mental experiences disappear. Would we then have a state like nirvana?

The emphasis upon the supernatural and union with it is so prevalent in Western tradition that one is likely to be nonplussed by the experience of nirvana among the Buddhists, just as by the experience of Tao among the followers of Chuang-tze. There are supernatural mysticism, nature mysticism, and evidently a third kind that may be called humanistic mysticism. It may be thought strange to call anything humanistic mysticism, and perhaps some other name would be more appropriate. But in the mysticism of nirvana, by emptying oneself of desire one does not become united with God, nor does one become united with Nature. A person merely loses himself in his own negativity, perhaps like the Nothingness that is the goal of Nishida Kitarō (1870-1945), the Japanese Zen-neo-Kantian.

The Buddha appears to regard man's ethical situation from neither a strictly philosophical nor a religious viewpoint. He is not interested in examining the situation in which man finds himself from a speculative or analytic point of view, as a conflict between different systems of ethics, or from the point of view of some orthodox or heterodox religion with a sacred object or a notion of holiness, as that term is most generally used. He begins with the data of experience, highly colored to be sure, if we may put any trust in the legend, by his initial shock of realizing that disease and death are the lot of mankind. He reacts to the existence of disease and suffering as the Christ later reacts to the existence of hypocrisy and indifference among the Hebrew priesthood. But whereas Jesus remains almost completely immersed in the theological framework he inherits, the Buddha attempts to reject this as being unrealistic and impractical. The Christ falls back on the Fath-

er; the Buddha falls back on himself, thus adopting a kind of humanism. "I am delivered," the Buddha says, "from all fetters, human and divine."[110] Both of these saviors are primarily practical and antispeculative, the Buddha being less so than the Christ by virtue of his training and the quality of his disciples, among other things.

Other differences between these two great teachers are instructive. The Buddha believes that misery (primarily physical) is the result of the nature of things, whereas the Christ believes that misery is the result of contrariness to the nature of things, the nature of things for him being essentially the Will of the Father. For the Buddha, salvation is achieved by going contrary to the nature of things, and, for the Christ, by submitting to the "real" nature of things. The result, in both instances, is a basic rejection of the naturalistic view of what constitutes the nature of things.

The social ethics of the Buddha is such as to cause little conflict with the existing order of law or custom. He proclaims that the mere act of being born into a particular caste is not so important as virtue; there is no reason to believe, however, that he attacks the notion of caste or even the exalted positions of the Brahman or Kshatriya. Most of his followers are recruited from the upper castes.[111] Indeed, slaves, unless emancipated, are excluded.

Since the world itself contains nothing of permanent or perhaps even transitory value, there is no reason to attempt to change the unvalues of the world. There is no reason to think that, considering that the world is miserable, the early Buddhists believe they can do anything about it except in the subjective way indicated. In this they are in general agreement with Stoicism. The notion of amelioration of a social or physical kind is completely foreign to the outlook of the Buddha and his early followers. In fact, the origin of the castes, in keeping with his doctrine of action (karma), may be traced to the deeds of the castes in the beginning of the present world-system.[112] The early Buddhists are in general far less critical of the *status quo* than are the Carvakas, but, as has been

110. *Mahavagga* i. 11, 1.
111. Keith, *Buddhist Philosophy in India*, p. 121.
112. *Ibid.*

previously seen, the Buddhists were the first religious orders in India to permit women to join.

Nevertheless, it must be said that early Buddhism is not concerned with the welfare of groups or society in general except as these impinge on the action of individual monks attempting to gain salvation. The individual monk when faced with suffering which he might alleviate is enjoined to do so. But since any kind of existence would entail suffering, slightly less suffering, even if it can be shown as possible, would be considered trivial in light of the complete cessation of suffering for which one should strive.

The awareness that animals are also creatures who live and suffer and hence should be treated with compassion is perhaps a step toward realization of social ethics. The feeling of sympathy for animals is well shown in the *Jātaka* stories where the animals such as the elephant, hare, and jackal are treated with sympathy and sometimes tenderness.[113] Although these are similar to the fables of Aesop, they differ from the fables in being less obviously anthropomorphic. The elephant has a life and soul of his own; he is not a man residing in an elephant skin.

The line dividing man from the lower animals is nearly imperceptible in Buddhism.[114] Man does not have the exalted nature that he is later to exhibit in Western philosophy. Since a man may be reborn an animal, insect, or bird, it is clear that these also contain souls. From one point of view this may be regarded as a feature of naturalism rather than of nonnaturalism. Since Darwin's time in the West, man has been regarded as a higher animal rather than a lower angel. We do not imply that contemporary man's view of the lower animals is like the Buddhist's, but it certainly is closer to it than that of the medieval Western philosopher.

Vaibhāṣika Buddhism

We have been discussing the philosophical outlook of the The-

113. *Jataka* iii. 51, 10, see B. L. Suzuki, *Mahayana Buddhism* (London: David Marlowe, 1948), pp. 131f.

114. For example, a man's soul may be transmigrated into animal bodies. On the other hand, an animal's soul may be transmigrated into a man's body. This is also a belief of Jainism.

ravadins of the Pali Canon in this chapter, but now turn to an examination of the views of a later group of Theravadins, the Vaibhasikas of the Sanskrit Canon. They appeared sometime around the first century B. C., or several hundred years later than the earliest recorded Buddhists of the Pali Canon.[115] The Vaibhasikas have their origin in the Sarvastivadin school, which gets its name from *sarvam* "all things" and *asti* "exist," hence *sarvastivadins* in Sanskrit, "those who believe that all things exist."[116] It is held that they were in existence as late as the fourteenth century A.D.[117]

According to Anukul Chandra Banerjee, in a recent valuable study of the Sarvastivadin literature, the Vaibhasikas came to be identified with the Sarvastivadins in later times, that is to say, perhaps after the fourth century A.D. It was also the opinion of Yamakami Sogen that the Sarvastivadins originally formed a sect of Vaibhasikas.[118] The Sarvastivadins were chiefly confined to Kashmir, while the Theravadins flourished on the central Ganges Plain in Magadha and Kosala. The credit for the spread of Hinayana Buddhism to Central Asia and from thence to China must go to the Sarvastivadins, who split off from the more orthodox Theravadins sometime before the first century B. C.[119]

The literature of the Theravadins, known as the Pali Canon, was given its orthodoxy by the powerful Asoka; the literature of the Sarvastivadins, on the other hand, was Sanskrit, although it still appears that it is mostly preserved in Tibetan or Chinese translations discovered or perhaps publicized in the early years of the nineteenth century. It is said that the Sarvastivadins were considered by Asoka to be unorthodox, which might account for their leaving Magadha, the principal center of the Theravadins in India, and moving to Kashmir-Gandhara.[120] The Sarvastivadins are generally believed to have been the guiding influence of Kaniska's Council held under the director-

115. Thomas, *The History*, p. 176.

116. Baiyu Watanabe, *Thoughts, Literature and Monasteries in Earlier Buddhism* (Tokyo: Minshukaihonbu, 1948), pp. 84f.

117. Eliot, *Hinduism and Buddhism*, I, 91.

118. Y. Sogen, *Systems*, p. 102.

119. A. C. Banerjee, *Sarvāstivāda Literature* (Calcutta: J. C. Sarkhel at the Oriental Press, 1957), p. 4.

120. *Ibid.*, pp. 5-6.

ship of Vasumitra, the purpose of which was to decide what the official canons of Buddhism were to be. Work is progressing at present to recover the Mixed Sanskrit manuscripts at Gilgit in Kashmir, which are being published under the editorship of Dr. N. Dutt of Calcutta University. Thus far they appear to be manuscripts of the Sarvastivadins, particularly of Kushan times (A. D. 40-400), showing remarkable parallelism with Pali Canon.[121]

According to Max Walleser, we know a considerably large number of propositions attributed to the Vaibhasikas, many of which are of theological rather than philosophical interest. A sample of these statements, taken from Walleser's German translation of the Chinese translation of the Sanskrit, follows:

> Everything exists.
>
> All produced things exist through the two things, both name and form.
>
> The past *(atīta)* and future *(anāgata)* exist.
>
> The province of the thought-object *(darmāyatana)* is to know *(jñeya)*, to represent consciousness *(vijñeya)*, and to perceive *(abhijñeya)* clearly.[122]

The Vaibhasikas got their name because they rejected the Sutras and, instead of accepting them, followed the commentaries on them, or *Vaibhāṣa*. They might, therefore, be called the Commentarians.

Vaibhasika Theory of Knowledge

The Vaibhasikas held that both the mental and nonmental are real, agreeing in this with the Sautrantikas, or Representationists, among the Buddhists. They agreed with the Sautrantikas that the external object exists apart from any knower, because, they say: (1) the objects are felt directly as being outside the self; (2) that if the object, such as a pot, were held to be not outside the self, then we would find people saying: "I am the pot"; and (3) that if we did not know that there were external objects, we should never say that "consciousness ap-

121. *Ibid.*, p. 16.

122. Max Walleser, *Die Sekten des alten Buddhismus* (Heidelberg: Carl Winter's Universitätsbuchhandlung, 1927), pp. 38-39.

pears as the external object" (as in reflecting), for that would be meaningless like the phrase "as the son of a barren mother." The consciousness of an object is felt to be internal, while the pot itself is felt to be external. On the other hand, the Vaibhasikas differ from the Sautrantikas, who believed that the form of the object appears to the mind or consciousness, being the effect of that object. The existence of the object, say a pot, is not perceived, however, according to the Sautrantikas, for consciousness is aware of a copy (sense datum?) of the object. From this copy, however, it is possible for the mind to infer an object.

The Vaibhasikas feel, on the contrary, that the object is not merely inferred but is directly perceived.[123] Inference depends upon initial perception. "To one unacquainted with an external object, the mental form would not appear to be the *copy* or the *sign* of the existence of an extra-mental object, but an original thing which does not owe its existence to anything outside the mind."[124] As believing in a theory of direct or naïve realism, not altogether different from the views of some American Neo-realists of forty years ago, the Vaibhasikas appealed to immediate experience although their allegiance is stated to be to the *Vibhasa.*[125]

There are two avenues of knowledge available to us, say the Vaibhasikas: perception and conception. Perception gives us true knowledge because it is free of imagination,[126] yet this true knowledge gained by perception has the quality of indefiniteness. Conception, on the other hand, does not give us true knowledge for it is corrupted by an admixture of the ideal and imaginary which is, nevertheless, definite. We thus have true knowledge which is indefinite, and imaginary knowledge which is definite. What is probably meant by this account is that sense information is clearly outside our control in a way

123. Jadunath Sinha, *Indian Realism* (London: Kegan Paul, Trench, Trubner and Co., 1938), pp. 35f.

124. Chatterjee and Datta, *An Introduction,* p. 175.

125. See H. Kern, *Histoire de Bouddhisme dans l'Inde,* trans. C. Huet (2 vols.; Paris: Leroux, 1903), II, 429f.

126. M. V. Vassilief, *Le Bouddhisme ses dogmes son histoire et sa littérature* (Paris: Durand, 1865), p. 274.

that conceptual knowledge is not.[127] This point has been set down by an early commentary as follows:

> Apprehension, exempt from ideality and not illusory, is non-discriminative. Discrimination, as resulting from the appearance of things, is without controversy, and illusion.
> The perceptible evidence of things is perception: if it were aught else,
> There could neither be things, nor evidence of things derived from verbal communication, inference, or sense.[128]

Other beliefs of the Vaibhasikas are (1) that the Buddha had an ordinary human body and (2) that the Buddha had such highly developed intuitive powers that he had no need to learn anything.[129]

What literature is available shows the Vaibhasikas to be a school with an outlook of extreme epistemological realism, like most of the Sarvastivadins, and considerable interest in cosmology, as is attested to by their speculation in atomism. They do not make any distinction between a natural and a transcendent sphere and hence do not hold that what is ultimately the most real is that found to be transcendent. Everything that exists is equally real, including the past and the future. What is given in perception points to an external world of existents, indeed the mental image is a copy of the external object.

The little that we know of the doctrines of the Vaibhasikas suggests that, unlike the earlier Theravadins, they do not regard intuition as the highest avenue of knowledge but rather award this place to sense perception. In this they are empirical and naturalistic. Although atomism is not an invariable sign of naturalism, as we may see in the world view of Gassendi in the West and in Jainism, yet in general, atomism is a fairly reliable guide to naturalistic tendencies. What is important about the atomism of Gassendi is not that he combined it with the Christian dogma of creation, but that he revived the

127. Radhakrishnan, *Indian Philosophy,* I, 618.

128. Madhava (Acharya), *Sarva-Darsana-Saṃgraha,* trans. E. B. Cowell (London: Kegan Paul, Trench, Trubner and Co., 1914), p. 27.

129. Hence, Eliot *(Hinduism and Buddhism,* II, 91) says that the Buddha is considered "superhuman" by the Vaibhasikas; Radhakrishnan *(Indian Philosophy,* I, 619) says he is considered "divine." It is said that he lost his being upon reaching nirvana, but this does not imply anything divine.

naturalistic atomism of Lucretius in spite of orthodox Christian objection.

Even if atomism be combined with a creation theory or the initial intervention of deity, the attitude fostered by the atomistic approach is one closer to naturalism than to nonnaturalism. This attitude in essence is the desire to explain phenomena in terms of natural law as in the case of Gassendi.[130]

Vaibhasika Metaphysics

Like the Vaisesika system, with which we shall deal later, the Vaibhasika view is pluralistic. For it, objects are of two kinds, depending upon whether they are directly perceived or merely inferred. "A distinction is made between the inner world of ideas and the outer world of objects. There is a difference in the way things hang together in thought and the way in which they hang together in nature."[131] Objects are not instantaneous elements in flux merely but have an independent permanent reality. Objects consist of four elements, earth, air, fire, and water, and are ultimately reducible to these. The atoms may be seen in combination, if enough are present, but cannot be seen singly, a viewpoint also held by Lucretius.[132] The Vaibhasikas maintain that an atom has six sides, making up an indivisible unit. According to Vasubandhu, the atom *(paramāṇu)* is the smallest particle of matter *(rupa)*.[133]

> It cannot be placed anywhere or trampled on or seized or attracted. It is neither long nor short, neither square nor round, neither curved nor straight, neither high nor low. It is indivisible, unanalysable, invisible, inaudible, untastable and intangible.[134]

Neither the Vaibhasikas nor the Sautrantikas admit double or triple atoms,[135] although later Vaibhasikas

130. Harold Höffding, *A History of Modern Philosophy,* trans. B. E. Meyer (2 vols.; London: Macmillan Co., 1924), I, 258.

131. S. Radhakrishnan, *Indian Philosophy* (2 vols.; London: George Allen and Unwin, 1948), I, 614.

132. Titi Cari Lucreti *De rerum natura libri sex,* ed. and trans. Cyril Bailey (Oxford: Clarendon Press, 1947), i. 600f.

133. Y. Sogen, *Systems,* p. 121. One fingertip comprises 1,975,226,743 *paramanus.*

134. Radhakrishnan, *Indian Philosophy,* I, 617.

135. See chapter 6, "Jaina Metaphysics."

> . . . hold that the Vayu-atoms are touch-sensibles, having impact or pressure for their characteristic property, and by aggregation form the element Vayu; the Tejas-atoms are colour-and-touch-sensibles, having heat for their characteristic, and by aggregation form the Tejas Bhuta; the Ap-atoms are taste-colour-and-touch-sensibles with a characteristic viscosity, and form the Ap-element. . . .[136]

The atoms are ultimately composed of the four original qualities *(mahābhūtas):*[137] earth, air, fire, and water. This is believed because

> The characteristics of the earth can be perceived by the sense-organs in solids. But the characteristic of water also is discernible in solids, because if it did not exist in it, gold, silver or copper and tin could not be reduced to a melting form.
>
> Again if the characteristic of water did not inhere in the atoms, they could not have coherence. And if the characteristics of fire did not inhere in them, fire could not be produced by striking a flint with a piece of iron. . . . Lastly, if movement, the characteristic quality of wind, were absent in the atom, things would not move, or grow, or perform any other function implying movement.[138]

The view of Anaxagoras is not markedly different from this last view of the Vaibhasikas. He says in his opening sentences of *On Natural Science:*

> All Things were together, infinite in number and in smallness. For the Small also was infinite. And since all were together, nothing was distinguishable because of its smallness. For Air and Aether dominated all things, both of them being infinite. For these are the most important *(Elements)* in the total mixture, both in number and in size.[139]

It is of interest to note that Anaxagoras has a notion of cosmos or totality of things which we may call Nature, whereas the Vaibhasikas do not specifically mention a cosmos or a totality of nature. They also do not mention the fact that "men too were fitted together, and all other creatures that have life,"[140]

136. Seal, *The Positive Science,* p. 92.

137. *Maha* = great, *bhutam* = basis. See Y. Sogen, *Systems,* p. 125.

138. Chinese version of Hiuen Tsang of the *Abhidharma-vibhashasāstra,* quoted by Y. Sogen, *ibid.*, pp. 123-24.

139. Anaxagoras, Fragment 1, Diels, *Fragmente,* II, 32.

140. Anaxagoras, Fragment 4, *ibid.*, pp. 34-35.

as Anaxagoras does. We cannot know with certainty if the Vaibhasikas went this far since our information about them is even more fragmentary than that concerning Anaxagoras.

It is interesting to compare the Vaibhasika analysis of the nature of atoms with that of Lucretius. Whereas Lucretius believes that the atoms are responsible for the appearance of the elements, the Vaibhasikas hold that the elements are inherent in the atoms. The Vaibhasika account is less simple (in a laudatory sense) but is perhaps more empirical than the outlook of Lucretius with regard to the ultimate nature of the atom in that the former endows the atoms with qualities open to macroscopic inspection.

The elements that make up the atoms can be regarded in three aspects, depending upon whether one is concerned with their thinghood, nature, or function, according to the Vaibhasikas:

Thing	*Nature*	*Function*
Earth	solidity	cohesion
Water	moisture	cohesion
Fire	heat	ripening
Air	motion	growing

How is it possible, admitting the atoms to be composed of the four elements, that some things are solid, some are gaseous, and some liquid? It is possible on the theory that there are two sorts of energy, active and potential. Some elements may display active energy, while other elements may display potential energy. When there is a blazing fire, heat predominates as the active energy; when there is a rushing flood, moisture is seen to be active energy. The river dammed in the mountain and the sun hidden behind the cloud are examples of potential energy.

According to Murti, the most important metaphysical problem for Vaibhasika was that of the nature of becoming—a point of view with which we must agree.[141] So far as cause is to be considered, Vaibhasika holds that "if the causes (like the seed

141. Murti, *The Central Philosophy*, p. 69.

etc.) were to continue to be present in unmodified form, the effect (sprout) cannot be produced. The seed has to cease to be before the sprout could emerge."[142] But then it is asked, how can the cause and effect belong to completely different moments of time; how can there be a relationship between them without any overlapping in time? This kind of Broadian criticism is acute, but it is a logical analysis of what must be determined observationally. It is this kind of tradition in Indian philosophy which makes so many contemporary philosophers of India feel that the Anglo-American analytic school is merely doing something that had been done in India more than a thousand years ago, and done well.[143]

Causation for Vaibhasika is a matter of cooperative action *(pratyayās)* rather than self-becoming. We are led here to raise the question of how disconnected factors or entities can come together to cause something to happen. From the formalistic point of view, another factor must tie them together, but then *another* factor must tie these all together as in the third-man situation.[144] This difficulty is obviated for Vaibhasika if an observational analysis of events occurs instead of a logical analysis. Several events *do* come together to cause another, and the attempt to find formal relations to explain this, it is reasonable to assume, is a posteriori rather than a priori.

In representing the Madhyamika point of view at this juncture, Murti claims that "Repeated observation serves but to deaden our sensitivity and to hide the mystery from us. In principle there is no difference between a magical apparition and one produced in the ordinary way of causes and conditions. In either case we are unable to explain wherefrom and how has the effect been produced."[145] Vaibhasika, it seems to us, expresses a view commanding more respect than the *logical mystery hypothesis* defended by the Madhyamika. The new effect is somehow present in the cooperating causes and appears within

142. *Ibid.*, p. 173. In reference to the second sentence, Murti quotes the *Mādhyamika Kārikā* of Nāgārjuna, A.D. 200-300.

143. Professor D. M. Datta, formerly of Lucknow University, was most insistent on this point in his lectures at American universties in 1950-51.

144. The third-man argument probably got its name from Aristotle, who used it to express a difficulty into which Plato had gotten through his theory of forms. See Murti, *The Central Philosophy*, pp. 175f.

145. *Ibid.*, p. 175.

a certain lapse of time, concludes the Vaibhasika philosopher.

On the Alleged Materialism of Vasubandhu

We wish now to briefly comment on the contention of F. S. C. Northrop that

> . . . it is well to keep in mind the realistic Hinayanistic Theravada Buddhism of Vasubandhu. . . . This system, it will be recalled, was also materialistic, since it denied the existence of persisting substantial selves, while affirming the existence of external material objects. It might very well have affirmed also that these material objects were atomic as well as gross in character.[146]

This raises the problem, if it is true, of whether the Buddhism of Vasubandhu (A. D. 420-500) should not also be included in this study, if, like Carvaka, it is a system of materialism.

Vasubandhu believed in the Theravada doctrine and, as a young philosopher, wrote a treatise in its spirit called the *Abhidharmakośa.* Later he became critical of the realistic position and founded the *Yogācāra,* an idealistic school of Buddhism in India.[147]

Even as a Theravadin, however, Vasubandhu is not a materialist. One point is sufficient to justify this interpretation. The analysis of causation indicates that Vasubandhu holds, like other Theravadins, that causation depends upon moral, hence mental, decisions, and that, although there is a physical stream of events, there is a mental one also which does not depend upon the physical. No school of Buddhism attempts to show the connection between physical and mental events as physicalistically as the Jains. But even the Jains do not interpret such events as unqualifiedly materialistic.

146. F. S. C. Northrop, *The Meeting of East and West* (New York: Macmillan Co., 1946), p. 360. In a letter to this writer concerning this passage (Ashland, New Hampshire, August 17, 1959), Professor Northrop states: "It is the case, however, that with respect to the first of his [Vasubhandu's] two systems—namely realistic Hinayana—this system did retain the belief in external objects while rejecting the concept of a substantial self and also believing in the Nirvana self. Since inorganic external objects are usually regarded as material objects, it may be said that *in this sense* for this portion of the first of his two systems he was a materialist" (author's italics).

147. Radhakrishnan, *Indian Philosophy,* I, 624f.

One might say that the early Vasubandhu would hold the world to be material if there were no human beings in it, but, once human beings are recognized in the flux of material events, there are two distinctive and independent elements present, namely, material events and mental-world events. So far as human beings are concerned (and that is *the* concern of all Buddhists, rather than the natural order in general), the stream of material events is neutral until mind is introduced. After the introduction of mind, material events are in some important sense susceptible of being controlled by mental events. Material events, furthermore, are directly controlled by mental events without the agency of intermediate ones. The Buddhist believes, unlike any materialist, that mere thought, in much the same sense that Freud speaks of the "omnipotence of thought," is a powerful agency in its own right. The distinction should be understood as a difference between a viewpoint which holds to something like the omnipotence of thought, as opposed to the dictum of Goethe that in the beginning was the deed *(Tat),* or the dictum of Lucretius that in the beginning was the atom *(primordium).*

Finally, there is no statement in the literature of Buddhism suggesting that mental and moral events are dependent ultimately on physical events or that mental or moral events are epiphenomena of, or structured with, physical ones. Nor can one find a statement showing that mental events are not ultimately independent of physical events, although this does not appear compatible with Buddhist nominalism. The Buddhists in discussing the nature of universals, as we have seen, are treading a path not incompatible with naturalism, but, in the light of their epistemology and ethics, it is certainly not a materialistic one. All this applies with equal force to Vasubandhu.

We must be careful, in dealing with the various forms of atomism in Indian philosophy, to avoid equating these views with the Greek atomism of Democritus, Epicurus, or Lucretius, despite similarities. We find atomistic cosmology in Theravada Buddhism joined with nonnaturalistic methodology and ethics; atomism in Jainism joined with a doctrine of human omniscience; and the atomism of Mahayana Buddhism joined with a radical sensationalism in which "We read into external

nature what exists only in our own minds."[148] It might be well to remember that Leibniz' spiritual monadology itself represents a kind of atomism. Therefore, the proposition, "This Indian school is atomistic," does not imply either that "therefore it is materialistic" or that "therefore it is naturalistic."

An Overview from a Western Standpoint

The epistemology of the Vaibhasikas is essentially naturalistic since it is sensationalistic. Although there is some suggestion that they have a sacred scripture in the *Vibhasa,* this work seems not to have affected their determination to base knowledge on the findings of sense perception. As all Indian philosophies, with the exception of Carvaka, appear to have had a sacred book or books, the existence of such books is no a priori sanction for the belief that therefore each school is authoritarian. We shall see, particularly in the case of Samkhya, that where authority contradicts sense perception, authority must be rejected. In the last analysis this is true for all the Indian schools whether they profess to *sruti* or not. *Sruti* in the hands of Indian philosophers becomes roughly what the Christian *Bible* does in the school of nineteenth-century higher criticism in Protestantism.[149] The philosophers revel in different interpretations whenever they find this to their taste.

The Buddhists of the Pali Canon, on the other hand, are non-naturalistic in their epistemology since for them the highest source of knowledge is intuition. And although these same Buddhists deny the truth of revelation and authority other than the Buddha's, his authority is not seriously considered to be contestable.

If it is said that the raw material for intuition is experience and hence the Buddha bases his knowledge upon experience, in this sense, and therefore he is really naturalistic, then it is apparent that many brands of mysticism and intuitionism will also warrant being called naturalistic. We must, therefore, deny that Buddhist epistemology is naturalistic.

148. *Ibid.*, p. 627.

149. See J. M. Robertson, *A History of Freethought in the Nineteenth Century* (2 vols.; London: Watts and Co., 1929), I, chap. vi.

The metaphysics of Theravada Buddhism is naturalistic in the sense that the supernatural, if not explicitly denied, is disregarded.[150] The world consists of objects which have physical existence and mental states which have existence of a different order, being internal and imaginative. We are faced with a difficulty, however, when we are asked to explain the Pali Buddhist belief in heaven and hell. It might be thought strange to call these two natural in any sense. References to heaven and hell suggest that these realms are not supernatural in the sense they are so deemed by Christianity. There is no sharp division between heaven and hell, on the one hand, and this world, on the other. The absence of this division, so familiar to modern Western modes of thought, reminds us of Greek Olympianism,[151] as opposed to Orphicism, which was later to have its effect on early Christianity. Nevertheless, Pali Buddhism appears to have a kind of eschatology without a theology.

Causation is conceived naturalistically in the sense that everything is the result of some cause, no cause being supernatural. Miraculous events by means of the intercession of deity are unthinkable. There is not the slightest suggestion that a man may be saved from anything by the assistance of demons or demigods. These appear to have no more effect than Lucretius' gods out in interstellar space.

The belief that causation is essentially moral is an aspect of Buddhist doctrine requiring careful consideration. We should say that this has a nonnaturalistic flavor.

This same belief is to be found among the Ionian naturalists who make up the earliest scientific tradition in the West, particularly in Anaximander (611-547 B.C.) where individual things owe their existence to injustice.[152] The Ionian belief that causation was associated with fate or destiny *(moira),* and

150. Few Indian writers go as far as S. C. Chakravarti, *The Philosophy of the Upanishads* (Calcutta: Calcutta University Press, 1935), p. 59, where he says, "But it is not possible to bury materialism so soon. It sprang into new life in the Buddhist system and, shorn of its crude appurtenances, i.e., those seen in Charvaka [,] came to have a dazzling course of existence, claiming ultimately as its votaries a considerable portion of the inhabitants of the globe."

151. F. M. Cornford, *From Religion to Philosophy* (London: Edwin Arnold and Co., 1912), pp. 160f.

152. Anaximander, Fragment 1, Diels, *Fragmente,* I, 89.

hence with morality, is not completely different from the Buddhist notion of karma.[153] The Stoics also believe not only in the inseparability of morality and causation, but that deity of some kind is involved. This holds for Aristotle's teleology as well. The point we are making is not that since the Ionians and the Stoics associate causation with morality, therefore such a doctrine has naturalistic sanctions. What is important is that some early schools, generally held to be naturalistic, did not eradicate this moral element.

We normally associate a naturalistic view of causation with a kind of neutralism, so that when naturalists discuss causes of effects we expect them to avoid using ethical terms and making ethical judgments. Yet, as we have seen, it is theoretically possible for systems predominantly naturalistic to hold that causality and morality are bound together.

Buddhism, although realistic in epistemology, is nominalistic with regard to universals. The early Buddhists were not concerned with the status of universals, although later schools drew the implications of impermanence of the flux of events, never entertaining the notion that momentary events get their reality from universals, or that universals exist in any sense. One of the most succinct statements of a later view has been made by the Brahman Vacaspatimiśra in his *Nyāya-vartika-tātparya-ṭīkā,* in which he says of Buddhist nominalism, "The following (theory) is here noteworthy. Names indeed, are (not signs of ultimate reality, but) of mental constructions. The objects named are the same as the objects of these constructions."[154] This view, which is probably later than the third century A.D., is relatively sophisticated compared with that which the Buddhists of the Pali Canon were likely to hold. That we have no record of their opinions on universals is unfortunate. It can be said, we believe, that the Buddhists of the Pali Canon were not even moderately realistic about them.

The Buddhist belief concerning the nature of the soul (equated with the permanent self) is a contradictory one. On the one hand, following from the doctrine of momentariness, the soul or self is regarded as transitory, a momentary state, such that no

153. Cornford, *From Religion,* pp. 4f.

154. Quoted by Stcherbatsky, *Buddhist Logic,* II, Appendix v. This was a Brahman statement of a Buddhist position.

substratum or entity is recognized as persisting through time. On the other hand, the soul or self is an entity that must persist, for if it does not, what is it that attains enlightenment by means of cultivation? Cultivation implies a *somewhat* to be cultivated. It would be a curious nonexistent phenomenon that could be regarded as becoming enlightened over a period of years or lives. This is precisely what the Buddhists hold. Hume, when faced with the same difficulty, admits the unsatisfactoriness of phenomenalistic analysis and presages the as-if kind of solution that haunts Vaihinger and twentieth-century abstractionism. Kant "solves" the problem in his decision to find certainty by cutting the self into the empirical and the transcendental.

It is evident that the Buddhists started with an empirical examination of the self, attempting to view it as any phenomenon given in experience. The self cannot be found; it is a stream of mental states, so far as it can be thought about. It is evident that it cannot be the body, they say, for the body is corruptible and constantly undergoing changes evident to the least enlightened. Enlightenment itself leads to a deepening realization that there is no entity that may be called the self. As we have already seen, they did not consider the problem of accounting for memory which the Brahmanical philosophers had found to be a stumbling block in the Buddhist account.[155]

The Buddhists never think of the self as containing any divine, eternal, transcendent element as the philosophers of some Hindu systems do. The self, if it exists, must be composed of what is investigable: the Hindu philosophers believe it must be either physical or mental. The Buddhists believe that it cannot be physical as is attested to by all perceptual experience. Do they then think it to be mental? In their answer to this question appears the strangeness of their position. The self does not exist as mental, yet it is mental in some sense. The explanation for this solution is not difficult to see. First, they wish to deny a mental or spiritual self that can be confused with the *atman* of the Upanishads and all the theology and

155. The Vedantins held that the self is divine or the manifestation of Brahman. See Mysore Hiriyanna, *The Essentials of Indian Philosophy* (New York: Macmillan Co., 1949), p. 73.

spiritual monism that it might imply.[156] Second, their major aim is to see that the individual is released from suffering, and, in order to have this release be meaningful, they must admit a *somewhat* that can be released. The Buddhist rejects any notion that release is to be sought in union with Brahman, with some nonnatural world soul or supernatural being. Release (nirvana) may indeed be ineffable, but ineffability does not imply *union* with anything as far as they are concerned. Neither does it imply "return" to a universal soul or to an ultimate reality not of this world.

The Buddha's desire to limit fruitless speculation has, as has already been mentioned, led to the belief that the Buddha was a positivist in some sense. It is difficult to reject completely this hypothesis, yet it seems, on the basis of the speculation attributed to the Buddha, that he has not really pushed investigation to its limit and decided that certain kinds of questions cannot be answered. Instead, he is dissatisfied with speculation because it leads to conclusions different from his own, distracting individuals from the path of salvation. The Buddha does not generally attempt to disprove the position of an opponent; he merely ignores it. The interest of the Buddhists of the Pali Canon in finding the causes of misery is motivated by the naturalistic attitude; but, on the other hand, to look for misery predominantly in a moral or psychic chain of events is in general motivated by a nonnaturalistic orientation. Ordinarily, the naturalist will not be satisfied with a mentalistic solution to the problems of life.

In Stoicism the individual is "free" within himself but is "unfree" with regard to events outside himself. This freedom within necessity is not unlike the Buddhist position, except that the Stoics develop a more comprehensive notion of the external world than the early Buddhists. The Stoics think that one should live in harmony with nature, whereas many Buddhists think that man should live contrary to nature since nature is misery-producing rather than good-producing.[157] The Stoic does not

156. Especially the notion that man himself is divine. See *ibid.*, p. 73.

157. It must be admitted that recent Mahayana Buddhism, especially in Japan, is more likely to *submit* to nature than Hinayana. According to D. T. Suzuki, who cannot be said to speak for all Zen masters, the world is seen as neither

take nature to be a good thing but to be essentially neutral in character. The important ethical choice is one concerning the individual's attitude toward nature: neither rebellion nor submission is the proper attitude but one of equanimity or cheerful serenity.

The Buddhist is nearer more recent mechanical naturalism than the Stoic in that he does not regard the universe, in so far as he regards it, as purposeful or endowed with a metaphysical force such as reason, soul, or life-force. The Buddhist looks upon the universe as composed of events, some of which are misery-producing and others of which are neutral. Events are not intrinsically interesting except as they impinge on human conduct, particularly as they relate to momentous ethical decisions. Man has control of his own thoughts and judgments but no control over the stream of events outside himself. There is no suggestion in Buddhism of a Stoical as-if attitude toward life: that is, as-if it is to be performed in a theater world with each man as a character actor. A man ought not to act the part of a poor man as best he can, according to the Buddhist view, although a Stoic might hold that he should.[158] All men ought to act, according to Buddhism, in such a way as not only to minimize misery (displeasure) but to eradicate it entirely. Essentially man does this by eradicating the "natural man" consumed with desire and living in the unsatisfactory condition of achieving worthless goals dictated by "natural living." The Buddhist, of course, has no such distinction as the "natural" except in so far as "the natural" is the underlying substratum of misery. The natural, as "That which is given as a fundamental datum of human experience," is evil for the Buddhist. It is evil because it is the chain of causation itself (events in process) that leads to evil consequences in the moral life.

The Buddhist may base his ethics on a kind of naturalistic-moralistic analysis of existence as given to us through our senses; he may generally disregard supernatural interpretation of the universe, human existence, or ethics. Man is to

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natural nor supernatural (*Studies in Zen* [New York: Philosophical Library, 1955], chap. VII, "The Role of Nature in Zen Buddhism," 1953).

158. "The Manual of Epictetus," in Whitney J. Oates (ed.), *The Stoic and Epicurean Philosophers* (New York: Random House, 1952), p. 472.

find the ideal within himself, and particularly within himself in a mentalistic manner. The locus of goodness ultimately rests in the mind of the individual himself, as opposed to residing in his body, a group, or society. It is an ethics of "extreme individualism"[159] without the connotation that such a notion usually implies, of men struggling against each other for the goods of this life. There is no immediate conflict between individuals because each one has a goal that can be attained without preventing anyone else from achieving that goal.

The extreme individualism of Buddhism is a pole apart from the individualism of Hobbes. Where Hobbes had a fiction-theory of groups, Buddhism has a fiction-theory of selves in the sense that the self, soul, or individual is considered to be without substance or continuity. The goal of Hobbes's man, self-preservation, and all the goods acquired by means of power, can be increased or decreased and be more or less desirable depending upon the number of persons who share in it. There is no war of all against all in Buddhism because everyone may possess the goal without decreasing its desirability or content. Nirvana is essentially a state of mind attained by one who is enlightened.

The Theravada Buddhists' outlook on social ethics follows from their extreme individualism. They were not concerned with society as such. Individuals ought to act so as to realize nirvana; they should save themselves. There is no recognition that ethics should be considered from a social as well as individual point of view except to the extent that a group can contribute immediately to individual salvation. So far as the Buddha is concerned, what is primary is the individual's realization that the world is miserable for him. To be sure he recognizes that it is also miserable for others, but others must themselves make their own decision to rid themselves of this misery. There is no notion of amelioration through the efforts of groups, nor "is there any room for grace or election"[160] with the exception of the instituting of monastic orders

159. Melvin Rader, *Ethics and Society* (New York: Henry Holt and Co., 1952), pp. 128f.

160. H. Bhattacharyya, "The Place of Feeling in Conduct in Bauddha and Jaina Philosophy," *Philosophical Quarterly* (Calcutta), XII (October, 1936), 177.

which are established to enable individuals to learn the path of salvation from experts.

There is no evidence that the Buddha considers evil and misery to arise from conditions in society itself. His atomistic view is such that he thinks of the individual surrounded by evil circumstances, thrust in the chain of causation, which is independent of human society. Yet, in contrast with the Christ, the Buddha did institute an official and formal Order in his lifetime.[161] The Order was instituted to help individuals lead a moral life under the precepts of the priesthood. The precepts included the following injunctions:

> Abstinence from destroying life;
> Abstinence from theft;
> Abstinence from fornication and all uncleanness;
> Abstinence from lying;
> Abstinence from fermented liquor, spirits and strong drink which are a hindrance to merit;
> Abstinence from eating at forbidden times;
> Abstinence from dancing, singing and shows;
> Abstinence from adorning and beautifying the person by the use of garlands, perfumes and unguents;
> Abstinence from using a high or a large couch or seat;
> Abstinence from receiving gold and silver; are the ten means (of leading a moral life).[162]

In so far as early Buddhism had one, the essence of its social ethics was concerned with the monks and priesthood of the Order. Rules were also laid down for lay Buddhists. These are less rigorous. After examining the abstinences of the Buddhists, we may say that these rules are less naturalistic than Stoic doctrine. The Buddha is opposed to asceticism of an extreme type but certainly favors a strict regimen for the body. This strict regimen is motivated by a desire not to live a fuller, harmonious life, however, but to rid one of desires of the flesh and to keep the satisfaction of these to a minimum. It would seem to us that this is basically contrary to the spirit of naturalistic ethics, where the needs of both the mind and body are regarded as worthy of

161. Warren, *Buddhism,* pp. 392f.
162. *Ibid.*, p. 397.

attention. This point of view in Buddhism is contrary to naturalism.

The point of view of Epictetus, the Stoic most likely to favor asceticism, can be contrasted with the Buddhist view with some profit. Epictetus in the main appears to favor truth-telling, continence, simplicity of dress, and the like, yet he never forbids a middle-of-the-way position. What is important is the distinction he makes between doing things according to nature and doing them for the sake of appearance. In the essay "On Adornment" Epictetus points out that a young student of rhetoric will be no more handsome than he is by nature for all the elaborate arrangements of his hair.[163] Epictetus does not feel that elaborate hair arrangement is an evil so much as it is a worthless affectation. Hair arrangement does not change the basic nature of things.

The Buddha's view would be that concern over hair arrangement is a trammel in our moral development. Certainly hair arrangement will not affect our attempts to be rid of desire. Curiously enough, the Zen Buddhist would be more in agreement with Epictetus than the Theravadins would. Whereas the Theravadins would maintain that such trivial concerns would be a hindrance to nonattachment, the Zen would say that there may be attached nonattachment and nonattached attachment. To the Zen, the important thing is to act without attachment. This would be possible even if one were meticulous or overmeticulous about one's hair grooming. This Zen development, reminiscent of Taoism (and Epictetus), hinges on a kind of depth analysis peculiarly more subtle than the psychology of Theravada Buddhism.

Therevada Buddhism's almost puritan straightforwardness on questions of conduct suggests a greater understanding of the common natural man who when he swears off an evil habit or practice merely stops doing it. The psychological subtlety of Zen, and to a certain extent Epictetus, suggests a kind of subterfuge that enables men to do as they please so long as they have the right attitude about it. The Theravadin is not taken in by this have-your-cake-and-eat-it-too position. He says simply, "If it is attachment-making, leave it."

163. Oates, *The Stoic and Epicurean Philosophers,* pp. 343 f.

In comparing Buddhism with Stoicism, we note that Stoicism accepts a pantheistic world, while Buddhism in a way rejects an atheistic natural world. They are both in agreement in holding that the individual is somehow subjectively free from determination by the natural world. Buddhism no more than Stoicism believes that this subjectivity is in any way supernatural. They both end in a moral predicament common to certain forms of naturalism—Stoicism, in holding that the natural world determines human existence yet leaving part of human existence "free"; Buddhism, in holding that the natural world determines human existence although claiming that some kind of humanity is in some sense "outside" human existence.

Summary

Our final appraisal of Theravada Buddhism is that it reveals somewhat more of a naturalistic temper than a nonnaturalistic one. This is true from the following major considerations:

1. Buddhism is naturalistic in believing in uncreated primordial elements.
2. Buddhism is naturalistic in its tacit atheism.
3. Buddhism is humanistic since it believes in the ability of the individual to achieve ethical goals in this world without nonhuman aid.
4. Buddhism is ateleological throughout.

Theravada Buddhism's agnosticism concerning deity, its absence of teleology, and its humanism give it a tone which is foreign to nonnaturalism. We make this appraisal despite the Theravadin emphasis on intuition at the expense of the empirical method.

7. THE NATURALISM OF SAMKHYA, THE OLDEST SYSTEM OF BRAHMANICAL PHILOSOPHY

The Beginning of Samkhya

Samkhya philosophy, unlike the three systems already discussed, is usually called an orthodox Brahmanical system of Indian thought. It is generally held that Samkhya accepts the authority of the Vedas, although this must be taken with important reservations,[1] and, hence, is called *astika* rather than *nastika*. Carvaka, Buddhism, and Jainism all deny the authority of the Vedas without qualification, the latter two substituting for them their own canonical literature.

Samkhya has its roots in the Upanishads but is first mentioned as a separate school around the time of Alexander's invasion of western India and about the time that Kauṭalya was minister to the founder of the Maurya Empire, Candragupta.[2] Kautalya, as is now well known, mentions only three philosophies in the opening passages of his *Arthaśastra:* Samkhya, Yoga, and Lokayata.[3] It is quite likely that Samkhya is the old-

1. These will be discussed in Samkhya "Theory of Knowledge," below.

2. Walter Ruben, "Die älteste brahmanische Philosophenschule Indiens, das epische Sāṁkhya," *Wissenschaftliche Zeitschrift der Humboldt-Universität zu Berlin*, V, Sec. 2 (1956), 224.

3. Kautalya, the Machiavelli of India, cannot be designated a technical philosopher, yet it is with interest that we briefly note his opinions along with other naturalists in the statecraft of his time. As the famous author of *Arthaśāstra* (321-296 B.C., according to J. F. Fleet in *Kautilya's Arthasastra,* trans. R. Shamasastry [4th ed.; Mysore: Raghuveer, 1951], p. v.), Kautalya makes his naturalistic philosophy part of the wisdom of government, although this is

est school of Brahmanical philosophy.[4] Two main streams of orthodox philosophy grew out of the Upanishads: the realistic, of which Samkhya is the earliest representative, and the idealistic, of which Vedanta is the leading representative. Sam-

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not sharply brought out by Shamasastry in his edition of 1951. It has scarcely been mentioned at all before Walter Ruben's analysis in *Geschichte der Indischen Philosophie* (Berlin, 1954). In chapter ii of the *Arthasastra,* entitled "The End of Sciences," Kautalya calls the first subdivision the "Determination of the Place of Anvīkshakī," which turns out to comprise three possible philosophies: Samkhya, Yoga, or Lokayata (roughly equivalent to Carvaka). It is the view of Kautalya that philosophy must acknowledge the importance of economics and political theory, that statecraft could well use religion for the common people as a means of ordering them smoothly in the state machine. His attack upon the use of astrology (an important science for Brahmanism) depended upon his notion that the ruler should run the state according to cool intelligence and practical considerations within a naturalistic framework. People will fear the ruler, Kautalya believes, because of his calculating intelligence, but they will not hate him because he is not superstitious. The ruler should base his rule, not on the religious-idealistic view of life, but upon a realistic outlook in which devious methods rather than devious thinking are employed.

Other indications of Indian heterodoxy at this time, during which those who denied the eternal soul and metempsychosis were given the title *nastika,* were the discussions of the Minister Jābāli in the *Ramayana.* These remind us of the remarks, earlier attributed to Ajita, indicating that like Kautalya, Jabali had an eye for expenditures: especially expenditures of food for ritual which ultimately is consumed by priests. Prince Rāma, according to Jabali, should beware wasting his goods in such worthless enterprises as recommended by the greedy priests (Ruben, *Geschichte,* p. 151). Lakshman, the pious brother of Prince Rama, in a cynical speech directed at his brother, warns that the only things which count are those which are given in perception (sensation). We can see trees and animals, but where is righteousness to be found? What really matters is not wise words, but money, for whoever has money has friends and relatives and may live in satisfaction and in peace. Thus the ministerial craft of Jabali and his brother Rama consisted in passing quickly over the idealistic pretensions of the orthodox and emphasizing instead the naturalistic interpretation of society for the end of intelligent living.

We also find indications of a few naturalistic diamonds in the *Mahabharata,* another epic of this time. King Yudishthira, in arguing with the Holy Sahadeva, believes that if the soul is eternal, then one may with impunity (peace of mind) slay his enemy. Or, on the other hand, if the soul comes to an end with the body, then there is no afterlife and one may also slay his enemy because there will be no later judgment (Ruben, *Geschichte,* p. 153). Another passage in the *Mahabharata* xii. 182-92, is a conversation of the perhaps mythical, naturalistic Bhāradvāja with the perhaps mythical idealist, Bhrgu. To the question of Bharadvaja as to what the world is made of, Bhrgu answered within the context of monistic Samkhya cosmology, in which everything comes out of an original spiritual principle. The next question raised by Bharadvaja concerned the constitution of the elements, to which Bhrgu answered that originally there was a motional ether which was put into action by the wind (Wind-Breath Naturalism).

khya, second only to Vedanta, has been the most influential philosophical school in India.

The extant literature of Samkhya is not as early as that of Buddhism or Jainism, but there is strong reason to believe that, like Carvaka, Samkhya flourished contemporaneously with Buddhism and Jainism, perhaps as early as the fifth century B. C.[5] The earliest fairly lengthy account of it is to be found in Caraka's *Ātreyatantra* (78 B. C.) and its most important early work, Īśwara Krishna's *Sāṃkhya Kārikā (ca.* A.D. 200). The *Mahābhārata* (Great Epic of the Bharatas; *ca.* 200 B. C. -A. D. 200), XII, mentions three schools of Samkhya: those who admitted twenty-four categories, those who admitted twenty-five, and those who correctly admitted twenty-six. The twenty-sixth category is a supreme being. This last is the Samkhya school approved in Patañjali's *Yoga Sūtras* (not earlier than 147 B. C.).

There are probably three strata of Samkhya. First, there is a theistic one, the details of which are lost; second, an atheistic one represented by Pañcaśika, for example, sometime before A. D. 200; third, an atheistic modification of the Pancasika, which is generally considered to be the orthodox Sam-

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In elaborating the cosmology, essentially Samkhya, Bhrgu concludes with a system in which spirit plays no part. But to the next question put by Bharadvaja, concerning the parts of plants and animals, Bhrgu answers in idealistic fashion after associating plants and animals with the principles of fire and wind, respectively. Fire and wind must be associated with spirit and the eternal soul. To this Bharadvaja responds by pointing out that everything has already been explained through fire and wind without soul. Death is a condition without wind and heat (as Uddalaka had already stated); it is a condition of the dissolution of a complex made up of the five elements (Ruben, *Geschichte,* pp. 165-69). It is also held that this conversation between the naturalist and the idealist expresses the outlook of the early medical practitioners of this period and perhaps an outlook two hundred years earlier than the views of Hippocratic medicine. It is impossible at present to reconstruct the naturalism of the time of Kautalya so as to show a single system, but that naturalism had a strong appeal is attested to by its appearing again and again in the records of statecraft and theosophical discussions, particularly those concerning eschatological questions.

4. Theos Bernard, *Philosophical Foundations of India* (New York: John F. Rider, 1945), p. 58.

5. Mysore Hiriyanna, *The Essentials of Indian Philosophy* (New York: Macmillan Co., 1949), p. 108. Buddhist legend claims that Kapila, the alleged founder of Samkhya, lived before the Buddha. See A. A. Macdonell, *A History of Sanskrit Literature* (New York: D. Appleton and Co., 1900), p. 256.

khya.[6] We shall be concerned with a systematic account of this last school of Samkhya.

The account of Samkhya philosophy which follows is based on literature written as early as 147 B. C. (Patanjali's *Yoga Sutras)* and as late as the sixteenth century A. D. (Vijñāna-bhikṣu's *Pravacanabhāṣya).* Whereas it is not possible to list the leading figures in the development of Carvaka, Theravada Buddhism, and early Jainism beyond the founders themselves, this is possible in Samkhya. The thinkers responsible for the development, in order of their chronological appearance, are as follows:

1.	Patañjali	*ca.* 150 B. C.
2.	Caraka	*ca.* A. D. 78
3.	Kapila (mythical?)	before A. D. 200
4.	Pañcaśikha	before A. D. 200
5.	Īśwara Krishna	*ca.* A. D. 200
6.	Gauḍapāda	A. D. 700-750
7.	Vācaspatimiśra (a Vedantin)	*ca.* A. D. 1000
8.	Guṇaratna	*ca.* A. D. 1500
9.	Writer of the *Sāṃkhya Sūtra*	after A. D. 1500
10.	Vijnanabhiksu	*ca.* A. D. 1600

All of these were in some sense Samkhya philosophers with the possible exception of Caraka, one of the leading members of what is called the Medical school, a Kashmiri flourishing under the Indoscythian king, Kanishka of Peshāwar. He wrote the *Caraka Saṃhitā,* a treatise representing Ātreya's system of medicine.[7] We shall be concerned primarily with the works of Caraka, Kapila, Pancasikha, and Iswara Krishna, which represent the heart of early Samkhya. The works of Gaudapada, called the Buddhizing Samkhya, Vacaspatimisra, Gunaratna, Vijnanabhiksu, and the Vedāntin Mahādeva are commentaries

6. Surendranath Dasgupta, *A History of Indian Philosophy* (5 vols.; Cambridge, Eng.: Cambridge University Press, 1922-55), I, 221.

7. Henry R. [Heinrich R.] Zimmer, *Hindu Medicine* (Baltimore: Johns Hopkins Press, 1948), pp. 50 f. See also Surendranath Dasgupta, *A History,* II, 402 f.

on the earlier works, particularly on the *Samkhya Karika* of IswaraKrishna. They are largely of secondary importance except in their additions to early Samkhya ethical theory.

The original meaning of the Sanskrit word *Sāṃkhya* is enumeration or number, although another meaning, probably slightly later, is reflection! The original meaning of the Sanskrit *Yoga* is contemplation. Hence Samkhya philosophy is said to aid its adherent to attain ultimate salvation by means of *knowledge,* while Yoga philosophy does this by means of *contemplation.*[8] Samkhya is essentially intellectualistic whereas Yoga is perhaps voluntaristic, if these terms are used sufficiently loosely and without too many layers of connotation derived from nineteenth-century Western philosophy.

J. N. Mukerji contends that Samkhya was the ruling philosophy of the pre-Buddhist Epic culture of India and that its essential spirit is to exalt the life of action attested to by many passages in the *Mahabharata* and by the choice of Arjuna as hero of *Kurukṣetra,* the life of warfare between the opposing tendencies of the individual's desires, good and evil. He says:

> This Epic culture began as a reaction against the faith in the super-rational authority and the ritualistic ethics of the Brahmans. The peculiar features of the Epic culture are its broad-based Humanism, Rationalism and the consequent distaste for the supernatural. The most convincing evidence of this contention is found in the logical outlook of Samkhya and the new significance attached to the concept of Karma. Karma is no longer the performance of the formalistic rituals but the proper discharge of the social functions. . . .[9]

This interpretation is based on an examination of the *Mahabharata* (Great Epic of the Bharatas) written between 200 B.C. and A.D. 200 and also upon the premise that the *Samkhya Karika* represents two inconsistent philosophies. The first fifty-two sutras are said to represent the genuine Samkhya and the last sixteen the spurious Samkhya. The difference be-

8. Hiriyanna, *The Essentials,* pp. 106 f. See also Hiriyanna, "Samkhya System," *The Cultural Heritage of India* (Calcutta: Belur Math, 1937). See Franklin Edgerton (trans. and interp.), *Mahabharata. Bhagavadgita* (Harvard Oriental Series, Vol. XXXIX [Cambridge, Mass.: Harvard University Press, 1944]), pp. 64 f. for the epic use of the name "Samkhya."

9. J. N. Mukerji, *Sāṃkhya or the Theory of Reality* (Calcutta: S. N. Mukerji, [1930]), p. xi.

tween these two is primarily that the first *Karika* is *bandha*-oriented while the second is *duḥkha*-oriented. *Bandha*-orientation is concerned with *error* as the result of ignorance; *duhkha*-orientation is concerned with *suffering* as the result of ignorance. Ultimately this distinction is of little importance if error is an unvalue because it leads to suffering. This we maintain to be the case.

The *raison d'être* of Samkhya is held to be *knowledge* of reality, the purpose of the knowledge being to release the individual from the bondage of ignorance. According to Mukerji, translations of *Samkhya Karika,* sutra 1, which hold that "The inquiry is into the means of precluding the three sorts of pain . . ."[10] or "On account of the attacks . . . of the three kinds of pain arises an enquiry into the means of their removal . . ."[11] are on the wrong track. What the first sutra really signifies, according to Mukerji, is that "the enquiry called the Samkhya philosophy is inspired by the object of dispelling the various errors regarding Reality."[12] Mukerji's reason for holding to this interpretation is based on his belief that the "First Karika" of the *Samkhya Karika* (sutras 1-52) is different from the "Second Karika" (sutras 53-68). The First Karika contains the "real" Samkhya, while the Second Karika contains the "spurious" Samkhya. We could agree with Mukerji if he had shown that *knowledge* functions in some other way than to remove pain. If knowledge were pursued for its own sake, for example, or for some reason other than the removal of pain, we should have no quarrel with him. We maintain that he has not shown this. His distinction between the real Samkhya and the spurious one, on the basis of internal evidence alone, may be correct, but it does not substantiate his contention.

Mukerji further maintains that the essential spirit of the First Karika is rationalistic,[13] antitheistic, antipolytheistic,

10. Īswara Krishna, *The Sankhya Kārikā,* trans. T. H. Colebrooke; *The Bhāshya of Gaudapāda,* trans. H. H. Wilson (Oxford: Oriental Translation Fund, 1837), p. 6.

11. Satish Chandra Banerji, *Sankhya Philosophy with Gaudapada's Scholia and Narayana's Gloss* (Calcutta: Hare and Co., 1898), "Sankhya Sutra I."

12. Mukerji, *Samkhya,* p. 6.

13. Macdonell *(History of Sanskrit,* p. 386) acclaims Samkhya as the first rationalistic philosophy in the world.

antipsychologistic, and antimystical.[14] He says it is also anti-naturalistic, but since he does not define naturalism, perhaps we should wait until the end of our inquiry to see how true this contention is.

Another feature of the First Karika is its rejection of ritualism, or its dissatisfaction with it, as may be seen in the second part of the first sutra: ". . . nor is the inquiry superfluous because obvious means of alleviation exist, for absolute and final relief is not thereby accomplished." On this view, which is substantiated by the text and commentaries upon it, Samkhya's orthodoxy appears more tenuous than most accounts of Samkhya admit.[15]

The rejection of ritual as an efficacious means to salvation is one of the distinguishing features of all the systems we are considering in this book. What is even less orthodox, according to Mukerji, is the Samkhya view that existence is not necessarily evil; on the contrary, existence is positively worthwhile, and it may be enjoyed, since experiencing and feeling pain are not synonymous. There is not only pain, but delightful experience *(sattva* or *priti)*.[16] We can find no evidence to substantiate this view in the texts or commentaries. Mukerji's decision to divide the *Samkhya Karika* into a First and Second Part is useful because it points out the probable influence of Vedantin criticism of Samkhya and the resulting accommodation made to this criticism which is obvious in the Second Part. It does not contribute markedly to the inner consistency of the Samkhya system as we shall see.

Another viewpoint which has appeared since we wrote this chapter is that of Ruben in "Die älteste brahmanische Philosophenschule Indiens, das epische Samkhya."[17] Here he maintains that Samkhya, which had its beginnings in the Vedas, is first expressed in the *Mahabharata* and in Kautalya. It expresses the first synthesis of a philosophical nature against the encroachments of materialistic philosophy. Another way of

14. Mukerji, *Samkhya,* p. 6. This opinion has evidently been influenced by Benedetto Croce, "The Task of Logic," *Encyclopaedia of the Philosophical Sciences,* ed. Wilhelm Windelband and Arnold Ruge (London: Macmillan Co., 1913), I, 213.

15. E.g., Madhava, Dasgupta, Chatterjee, and Datta.

16. Mukerji, *Samkhya,* p. 4.

17. Ruben, "Die älteste," pp. 223f.

viewing it is as the Brahmanical answer to Carvaka, Buddhism, and Jainism, although Ruben does not represent it precisely in this way. Even though in the Nanda-Maurya realm grammar, jurisprudence, political science, and medicine were flourishing (also some astronomy by which to fix important religious dates), Samkhya represented an ethical viewpoint primarily, although the system gives an appearance of cosmology. The three *guṇas* which make up the "undifferentiated continuum"[18] are originally ethical categories, according to Ruben;[19] in this Samkhya performs like some Ionian philosophies.[20] If we agree with Ruben in most details, we do not agree that Samkhya represents simply an idealistic reaction to heterodox philosophies. We think of it as it generally has been considered, as the foundation of Brahmanical realism and the clearest expression of Brahmanical dualism. In this respect it is a combined attempt to give a philosophical kiss to orthodoxy and yet incorporate some of the tendencies of materialistic and naturalistic heterodoxy. This dual role is most similar in Western philosophy to the role of Cartesianism, which appeared to be both idealistic and naturalistic.

Theory of Knowledge

The initial situation so far as knowledge is concerned for Samkhya reveals: first, a pure self, independent of mind and matter, and second, a mind-body system. Self, which is a transcendent subject, is an observer of the mind-body system but is completely independent of it. It is above space, time, and causality, and it is eternal and immortal.[21]

This pure self *(purusha)* like the pure self of the Jain is conscious but unable directly to apprehend the objects of the world. This it must do through the medium of mind which is material and unconscious. Knowledge is the result of the mind-body

18. A term first used in a philosophical context by B. Seal *(ca.* 1915) and made popular among comparative philosophers by F. S. C. Northrop in *The Meeting of East and West* (New York: Macmillan Co., 1946).

19. Ruben, "Die älteste," p. 236.

20. See the discussion on Empedocles below in the chapter on Vaisesika.

21. This so-called pure self is of course attached to some body at some time or other. The implications of this will be discussed in the section on Samkhya Metaphysics, below.

system "effecting" or mirroring for the pure self various external objects. "Just as a mirror reflects the light of a lamp and thereby manifests other things, so the material principle of *buddhi*,[22] being transparent and bright, reflects the consciousness of the self and illuminates or cognises the objects of knowledge."[23] The pure self knows by mirroring, an apt simile for a situation where there can be no active connection between the self and the mind-body system.

Iswara Krishna plainly states the three possible avenues of knowledge for Samkhya to be: "Perception, Inference, and Authoritative Statement . . . for they comprise every mode of demonstration. The complete determination of the demonstrable is verily by proof."[24] These three avenues are similar to the first three mentioned by the Jains. Early Samkhya, however, rejects the fourth and fifth mentioned by the Jains, namely, mind reading and omniscience. We shall now examine the three Samkhya methods in turn.

The physical basis of perception is the five sense organs, the physical intellect *(buddhi)*, and the external objects perceived. Not only does sight "go out to meet the perceived object" but so also does hearing. It does this by "gliding" caused by its very function *(vṛtti)*.[25] The sight function moves out to visible objects and the hearing function moves out to audible objects. Hence objects that cannot be "reached" are not perceived. In taste and touch the object is obviously reached, but we do not know whether Samkhya believes that the smelling function also goes out to meet the object smelled or not. It is possible that it does believe this if it believes that the hearing function literally reaches the object.[26]

"Perception is the mental apprehension of particular objects . . ."[27] according to Iswara Krishna. It may be of two kinds:

22. *Buddhi* is the *mind* in the mind-body system, also sometimes called *intellect*.

23. S. Chatterjee and D. M. Datta, *An Introduction to Indian Philosophy* (3rd ed.; Calcutta: Calcutta University Press, 1948), p. 317.

24. *Sankhya Karika*, 4, in Iswara Krishna, *Sankhya Karika*.

25. Jag Mohan Lawl (ed. and trans.), *The Sankhya Philosophy of Kapila. Sāṃkhya pravacana sutra* (Edinburgh: Orpheus Publishing House, 1921), v. 105.

26. Kumārila (the Mīmāṃsika) criticized this view because it does not account for the imperceptibility of distant objects.

27. Lawl, *Samkhya pravacana sutra*, p. 5.

indeterminate and determinate. Indeterminate perception is the immediate apprehension of an object without any association of name and class. It is presentive, direct, and immediate acquaintance without admixture of other associative elements. On the interpretation of Dasgupta, knowledge for Samkhya is a copy of external things and as such cannot be totally different from the things themselves. "But the fact that it copies those gross objects makes it evident that knowledge had essentially the same substance though in a subtler form as that of which the objects were made."[28] No reference is given for this passage, but if it is true, then the Samkhya view is not totally unlike that of Lucretius where peelings given off by the objects are what enter the mind to give it knowledge of those objects.[29]

Determinate perception is more complex, involving not only the presentive acquaintive process, but also recollection and association.[30] The function of the sense organs is to give us immediate apprehension; that of the mind to give us determinate perception by means of discrimination and assimilation. The mind, unaffected by the sense organs, is inert as in dreamless sleep.

Perception for Samkhya requires the following elements: (1) an external object, so as to distinguish it from illusion; (2) for a particular object a particular relevant sense organ; (3) the operation of the intellect *(buddhi),* which makes perception determinate; (4) the operation of the intellect within the central sensorium *(manas);* (5) the ego *(ahaṃkāra);* and finally, (6) the inferred, pure self, the seer (see-er) *(draṣṭṛ)* that can never be directly known but is recognized from its reflection in the intellect *(buddhi).*

The function of the intellect is selective attention, which by association and dissociation breaks up or synthesizes the immediate intuitions of indeterminate perception. After the intellect has performed this function, the empirical ego *(ahamkara)*[31] transforms the impersonal apprehension, analysis

28. Surendranath Dasgupta, *A History,* I, 414.

29. Titi Cari Lucreti *De rerum natura libri sex,* ed. and trans. Cyril Bailey (Oxford: Clarendon Press, 1947), iv. 63f.

30. Jadunath Sinha, *Indian Psychology* (London: Kegan Paul, Trench, Trubner and Co., 1934), p. 38.

31. Vijnañābhikṣu, however, claims that the sense organs give immediate, definite, and determinate apprehension of the objects. Furthermore, he says, there is nothing to contradict the apprehension of a sense organ.

component, and synthesis component into personal, subjective experience "suffused with egoism."[32] Egoism, according to IswaraKrishna is "Self-perception."[33] Narayana, in commenting on this statement, says: "EGOISM is conceit of self, internal belief that 'I know,' 'I do,' 'this is to serve my end,' 'this I possess,' &c. The cause thereof (is) self-apperception. Since cause and effect are not different, egoism is (said to be) self-apperception."[34] After the appropriation of the ego, the intellect resolves to act upon, to do something about, the object. "The function of the intellect is the ascertainment of its duty toward the object known."[35] It may be seen that the intellect plays the role attributed to "will" in rational psychology. Samkhya, however, rejects faculty analysis, holding that intellect, ego, and mind together constitute one internal organ. These three together are successive functional modifications of the internal mental organ *(antaḥkaraṇa)*. This internal organ is not conscious, for consciousness is the property of the pure self, a topic we shall discuss in the section on metaphysics, below.

Besides indeterminate and determinate perception, there is also yogic perception in later Samkhya but not in Kapila or Iswara Krishna. Yogic perception is possible by means of a peculiar power *(atiśaya)* acquired by meditation. This power enables one to come in contact with past and future objects, and this within the Samkhya system is consistent with the belief that everything exists at the present moment and that nothing comes into existence or goes out of existence. The mind of the yogin owes its superior quality to its having suppressed the matter stuff *(tamas)* of the mind, according to Vijnanabhiksu.[36] Aniruddha claims that the yogin can perceive objects in all time and space because of his connection to *prakriti*, the ultimate ground of all existence.[37] The role of *prakriti* will

32. Sinha, *Indian Psychology*, p. 120.

33. *Sankhya Karika* 24, in Iswara Krishna, *Sankhya Karika*.

34. Narayana's *Gloss*, 24, in Banerji, *Sankhya Philosophy*.

35. Sinha, *Indian Psychology*, p. 120.

36. According to Surendranath Dasgupta *(A History*, I, 223), Vijnanabhiksu, commentator on the *Sāṃkhya sūtra*, was more inclined to theistic Samkhya (and Yoga) than to atheistic Samkhya.

37. Richard Garbe (ed. and trans.), *Aniruddha's Commentary and the Original Parts of Vedantin Mahadeva's Commentary on the Sāmkhya Sutras* (Bibliotheca

be thoroughly treated in the section on metaphysics, below.

Besides perception, there are two other methods of acquiring knowledge according to Samkhya: inference and authority.

> Perception, Inference and Authoritative Statement are the three kinds of approved proof, for they comprise every mode of demonstration. The complete determination of the demonstrable is verily by proof.[38]

> Perception is the mental apprehension of particular objects; Inference, which is by means of a mark and the marked, is declared to be three-fold; authoritative statement is true revelation.[39]

By the "three-fold" inference is meant the prior, posterior, and generic, which is to say, (1) *prior,* in the sense of having an antecedent, as one infers rain from the prior antecedent of gathering clouds; (2) *posterior,* in the sense that one infers from the salty taste of a drop of sea water that the rest of the sea also tastes salty; and (3) *generic,* in the sense that one infers from the mango blooming here that it will also be blooming elsewhere, by analogy.[40] The relationship of *mark* to *marked* is that the *mark* is the predicate, while the *marked* is the subject, such that, having seen the *mark* (a triple staff) one may infer the *marked* (a mendicant). "Inference . . . premises an argument, and (deduces) that which is argued by it."[41] One may also reverse this procedure, with the mendicant as the *mark* and the triple staff the *marked,* such that one may infer the triple staff by seeing the mendicant.[42] J. N. Mukerji explains the relationship of the *mark* and *marked* as follows:

> Linga-linga [*linga-lingen,* mark-marked] relation means the relation of sign and signification, or meaning and symbol. It is a connection of meaning or logical connection. Of this two varieties may be noticed. They are (1) the causal relation and (2) the relation of kind and instance or *sāmanya* and *viśesa.*

Indica, Work 131, Nos. 782, 812, 825 [Calcutta: Baptist Mission Press, 1892]), i, pp. 90f.

38. *Sankhya Karika,* 4, in Iswara Krishna, *Sankhya Karika.*

39. *Sankhya Karika,* 5, *ibid.*

40. *Sankhya Karika,* 5, in Banerji, *Sankhya Philosophy.* T. M. P. Mahadevan points out that Gaudapada was probably an advocate of the adoption of the doctrines of Idealistic schools of Buddhism ("Not This Was Spoken by the Buddha," *Journal of the Madras University,* January-July, 1947, p. 1).

41. *Sankhya Karika,* 5, in Iswara Krishna, *Sankhya Karika.*

42. *Sankhya Karika,* 5, in Banerji, *Sankhya Philosophy.*

> Inference may thus be defined as the systematic construction or explanation of the objective world of perception by the disimplication of the connection of meaning hidden from sense-perception. It is distinguishable but not separable from perception. Perception and inference are continuous.[43]

There are three kinds of inference according to the *Samkhya Karika*. These are (1) reasoning from an effect to a cause *(Śeśavat)*, (2) reasoning from a cause to an effect *(Pūrvavat)*, and (3) reasoning from analogy *(Sāmānyatodṛṣta)*. (1) and (2) are concerned with causal inference while (3) is concerned with logical inference.[44] An example of (1) is reasoning from the rise of a river that it has rained; of (2), reasoning from the gathering of clouds that it will rain; and of (3), reasoning from the action of holding a thing, which requires the instrument of a hand, that seeing, which is an action, requires an instrument, namely the eye.[45]

Authoritative statement *(āptavacana)*, or "true revelation" as used in Samkhya, has led to considerable difference of opinion regarding its proper interpretation. By most, it is held to mean *sruti* or the supernatural or superrational revelation contained in the Vedas. Some have held that *aptavacana* indeed means *sruti*, but that it is included in Samkhya as a matter of policy so there would be less opposition to the doctrine. But why should Samkhya hedge on such an issue if it has already come out against theism? A third possible meaning, and the one we shall accept as the most likely on the basis of texts and commentaries, is that *aptavacana* is oral instruction which has been found to be true on grounds either of perception or of inference. "It is authoritative not because somebody has said it but because it has survived the test of reason."[46] This position is supported by Vacaspati in his rejection of the supposed

43. *Sankhya Karika*, 5, *ibid.*

44. Banerji, *Sankhya Philosophy*, 34f.

45. Mukerji, *Samkhya*, p. 22. According to Arthur Berriedale Keith *(Indian Logic and Atomism* [Oxford: Clarendon Press, 1921], pp. 128-29), "Vacaspati Miçra, in expounding the Samkhya doctrine, which does not admit comparison as a separate means of proof, analyses the process, and proves that there is nothing permitting of the setting up of comparison as a special means of attaining knowledge . . . similarity is recognized by perception, and inference accounts for the rest."

46. Mukerji, *Samkhya*, p. 24.

revelations of certain Samkhya writers[47] on the ground that their revelations are unreasonable and not amenable to proof. "Though there is nothing prescribed, yet what is unreasonable cannot be accepted, else we should sink to the level of children, lunatics and the like."[48] What is called "revelation" by writers on Samkhya turns out to be considerably different from "revelation" as understood by Tertullian[49] or by St. Thomas Aquinas.

Samkhya revelation is authoritative statement. It is authoritative because it squares with the evidence of perception and inference. There is no split between what is known by faith and what is known by reason, or between faith without evidence as opposed to faith with evidence. It is not correct, then, to say that Samkhya's *aptavacana* is superrational or dependent ultimately on external authority or authority of *sruti*.

The Samkhya position is much like the position the Jains hold with regard to study-knowledge, where propositions given in sacred literature are not automatically true but depend ultimately on some other test than mere deliverance. *Aptavacana* cannot be a gift from another but is contingent upon evidence for its ultimate meaning and truth.

Samkhya theory of knowledge, in spite of the school's alleged orthodoxy, does not hold revelation or the scriptures to be self-guaranteeing. The truth of the scriptures must be tested by some criterion other than self-evidence, intuition, or the like, since there are many propositions and systems which equally claim to be revealed. It is the job of reason to discover whether one revelation is true as opposed to another.[50] The invalidity of certain revelations "is due to their making unreasonable assertions, to the lack of sufficient support, to their making statements opposed to the canons of logic, to their acceptance by . . . low classes."[51] And according to

47. E.g., Sakya and Vijnanabhiksu.

48. *Samkhya Sutras* i. 26, in Banerji, *Sankhya Philosophy*, p. 47.

49. Tertullian *(ca.* A.D. 155-222), whose famous sentence in *De Carne Christi*, 5, unqualifiedly places revelation above reason. It reads: "It is believable, because it is absurd; it is certain, because it is impossible." This was written at about the same time as the *Samkhya Karika*.

50. S. Radhakrishnan, *Indian Philosophy* (2 vols.; London: George Allen and Unwin, 1948), II, 301.

51. *Tattvakaumudt*, 5, cited by Radhakrishnan, *ibid.*

Aniruddha, "Huge giants do not drop from heaven simply because an apta,[52] or competent person, says so. Only sayings which are supported by reason should be accepted by me and others like yourselves."[53] Yet in another passage, this same Aniruddha says, "The tenets of the Buddhists, etc., (i.e., of the Jainas and Chārvākas) are not true, *because* they contradict the Veda, and, therefore, they are (only) seeming (testimony)."[54] Aniruddha generally holds, however, that testimony itself must be consistent with perception and inference. This may be seen more obviously when he is attempting to refute *astika* philosophers. The different possible interpretations of the Vedas, in what are loosely called the six orthodox systems, inevitably led the philosophers of the different schools to the realization that the Vedas could not be the ultimate criterion of truth. Against *nastika* schools, on the other hand, the Vedas were used unguardedly, and contradictory opinions among the orthodox were not considered embarrassing provided one was refuting outsiders.

If we examine the Vedas themselves, says Samkhya, it is seen that they are not eternal, as is frequently held, since they possess the character of having or being effects which are noneternal. The letters making up the words in the Vedas, for example, perish as soon as they are uttered. Even if the Vedas are not of personal authorship,[55] yet they must be communicated by *āptas* to disciples. The truth of *aptas* is established by experience and by reason, which is to say that they must agree with what is accepted in other branches of knowledge such as treatises on medicine.[56]

52. A sacred verse.

53. *Sāṃkhya Sūtra Vṛitti* i. 26, cited by Radhakrishnan, *Indian Philosophy*, II, 301. Garbe *(Aniruddha's Commentary* i. 26) has it: "(Even) on account of the word of an authority the great noble gods do not fall down from heaven; (only) that sentence which is proved by arguments is to be accepted by me and by others who are like you." This reminds us of John Scotus Erigena *(ca.* 800-877) who says: "every authority which is not confirmed by true reason seems to be weak, whereas true reason does not need to be supported by any authority," cited by Frederick Copleston, *A History of Philosophy* (4 vols.; Westminster, Md.: Newman Press, 1952), II, 114.

54. Garbe, *Aniruddha's Commentary* i. 101 (our italics).

55. Many Samkhya philosophers held that the authorship of the Vedas was neither human nor divine.

56. E.g., such works as that of Atreya *(ca.* sixth century B.C.), the Hippocrates of Indian medicine.

But Samkhya "never openly opposes the Vedas, but adopts the more deadly process of sapping their foundations."[57] A good example of this is seen in the belief that those who have attained "release" do not need the Vedas and those who are "unreleased" are not competent to understand them.[58] We have fairly convincing evidence that Samkhya rejects revelation as a criterion of truth, and if we disregard the quite late attempts to introduce yogic perception as an avenue of knowledge, we may conclude that early Samkhya accepts the criteria of correspondence and coherence. One would probably be going too far to conclude, however, that coherence depended solely on correspondence. Even if we should accept the fact that Samkhya includes yogic perception, which we do not, as a method of attaining true knowledge, we may legitimately expect it to be treated as no more sacred than Vedic *aptas*. It can also be said without qualification that intuition plays a small role in Samkhya theory of knowledge compared with Jainism and Buddhism. And if we confine ourselves to stating the early Samkhya theory of knowledge, we must insist that correspondence and coherence are the ultimate tests of truth, with the greater weight resting on correspondence.

Samkhya epistemology, of the systems we have examined, is clearly more naturalistic than any but Carvaka. It may be placed roughly on a level with Aristotle's theory of knowledge where both sense perception and correspondence are legitimate avenues of knowledge. The closeness of the Samkhya view of epistemology with that attributed to Purandara, the later Carvaka, is noteworthy. Keith asserts:

> The absence of any attempt to examine more closely the nature of perception and of inference and their mutual relations is striking, and indicates how firmly fixed was the view of the system that perception gave immediate knowledge of reality, and that inference gave mediate knowledge.[59]

The uncritical nature of Samkhya theory of knowledge is revealed, according to Keith, in its acceptance of a third method

57. Radhakrishnan, *Indian Philosophy*, II, 302.

58. *Ibid.* According to Garbe (*Aniruddha's Commentary*, 27, 6), "the radical independence of scriptural authority" may be affirmed.

59. Arthur Berriedale Keith, *The Sāṁkhya System* (The Heritage of India [2nd ed.; Calcutta: Y.M.C.A. Publishing House, 1949]), pp. 88-89.

of knowledge, namely authority.[60] But as we have already shown, authority is merely *mentioned* as a method. Upon examination it is clear that it has no independent status apart from perception and inference.

Metaphysics

Cosmology

Samkhya, in constructing its theory of the universe, does not ask such questions as "What was in the beginning?" and "What will be the ultimate end?"[61] Such questions need not be asked, for they cannot be answered. What is required is a knowledge of what is presently existing or "the unfoldment of the implicit" *(vyaktāvyakta)*,[62] a study of man in his uncreated universe.[63] Once the "unfoldment" is understood, the highest knowledge is attained, the knowledge that liberation is both possible and at hand.

Samkhya "assumed matter at rest as the least possible assumption"[64] upon which to base its cosmology. The ultimate ground of the unfolding universe is *prakriti*, a formless, limitless, undifferentiated, indestructible, ungrounded, uncontrolled, and eternal matter. *Prakriti* is variously called the root principle *(Mūla-prakriti)*, the rootless root *(Amūlan mūlam)*, the chief one *(Pradhāna)*, and the unevolved evolver *(Avyakta)*.[65] It is an undifferentiated manifold or continuum such that its "unity . . . is a mere abstraction."[66] *Prakriti* is made up of infinitesimal substantive things, called *gunas*, of which there are three kinds: (1) Essence *(sattva)* or the media of the reflection of intelligence; (2) Energy *(rajas)* or the ef-

60. *Ibid.*, p. 89.

61. Mukerji, *Samkhya*, p. 27.

62. For the early meaning of *avyakta* as "great soul," see *Katha Upanishad* iii. 2, in F. Max Müller (trans.), *The Upanishads* (The Sacred Books of the East, Vol. I [New York: Christian Literature Co., 1897]).

63. Mukerji, *Samkhya*, pp. 27f.

64. R. W. Frazer, *Indian Thought Past and Present* (London: T. Fisher Unwin, 1915), p. 115.

65. M. Monier-Williams, *Indian Wisdom* (London: George Allen, 1875), p. 92. According to Keith *(Samkhya System*, p. 95 n), Garbe's rendering of *prakriti* as *Urmaterie* is too naturalistic.

66. Brajendranath Seal, *The Positive Science of the Ancient Hindus* (London: Longmans, Green and Co., 1915), p. 2.

ficient phenomena that work and overcome resistance; and finally, (3) Inertia *(tamas)* that counteracts the tendency of energy to work. The primordial stuff at the first level of differentiation is of three types: essences, energies, and inertias. These are not self-subsistent but are "interdependent moments in every real or substantive existence."[67]

According to the *Samkhya Karika,* as translated by Colebrooke:

> There is a general cause, which is undiscrete. It operates by means of three qualities, and by mixture, by modification, as water; for different objects are diversified by influence of the several qualities respectively.[68]

Banerji translates this same passage as follows:

> There is a (general) cause, Nature, (which) operates by means of the three constituent powers, by conjunction and by modification (varying) like water with the particular receptacle of the several powers.[69]

A slightly different interpretation of the three qualities is presented by Madhava, who shows the possible connection between them and the moral qualities to be discovered in life. He says:

> Hence we conclude that an effect which is composed of happiness, misery, and stupidity, must imply a cause similarly composed; and our argument is as follows:—The subject of the argument, viz., the external world, must have a material cause composed of happiness, misery, and stupidity, because it is itself endued therewith; whatever is endued with certain attributes must have a cause endued with the same,—thus a ring has gold for its material cause, because it has the attributes of gold; our subject is a similar case, therefore we may draw a similar conclusion. What we call "being composed of happiness" in the external world is the quality of goodness; the "being composed of misery" is the quality of activity; the "being composed of stupidity" is the quality of darkness; hence we establish our cause composed of the three qualities (i.e., prakriti, Nature).[70]

67. *Ibid.*, p. 3.
68. *Sankhya Karika,* 16, in Iswara Krishna, *Sankhya Karika.*
69. *Sankhya Karika,* 16, in Banerji, *Sankhya Philosophy.*
70. Madhava Acharya, *Sarva-Darsana-Samgraha,* trans. E. B. Cowell (London: Kegan Paul, Trench, Trubner and Co., 1914), pp. 226-27.

It is Madhava's belief that the three qualities were deduced from the moral qualities to be found in living. Although we find no Samkhya passage to corroborate his contention, it has the virtue of being a possible hypothesis.

Before continuing with our examination of the development of the universe, we must understand the Samkhya theory of causality.

Theory of Causality

The Samkhya theory of causality, which has its origins in the Upanishads, is a cardinal and original feature of this system. An early formulation of the theory is as follows:

> An effect (pre-) exists (in its cause), because of the non-existent being uncaused, of the employment (by men) of material means, of material means, of the absence of universal production, of the effecting of the possible (only) by a competent agent, and of the nature of a cause.[71]

This is such an important feature of Samkhya philosophy that we shall quote a different translation of the same passage:

> Effect subsists (antecedently to the operation of cause); for what exists not, can by no operation of cause be brought into existence. Materials, too, are selected which are fit for the purpose: every thing is not by every means possible: what is capable, does that to which it is competent; and like is produced from like.[72]

That the effect must pre-exist in the cause may be seen, it is held by Samkhya, from the following arguments. (1) That which does not exist cannot be the object of any activity, hence every x requires an antecedent yx, such that x is already to be found in its cause yx, for "It would be useless to grind the sesamum for oil, unless the oil existed in it. . . ."[73] (2) The product is not different from the material out of which it is composed, since there is an unfitness of all causes for every effect. The waterpot is made of clay, while cloth is made of yarn. (3) Finally, if the effect does not pre-exist in the cause, then it is possible for anything to come out of anything, for

71. *Sankhya Karika,* 9, in Banerji, *Sankhya Philosophy.*
72. *Sankhya Karika,* 9, in Iswara Krishna, *Sankhya Karika.*
73. Gaudapada, *Bhashya,* 9, in Iswara Krishna, *Sankhya Karika.*

efficient cause cannot do more than draw out of what already exists something like it. "For before production there is no difference between cause and effect."[74] The cause and effect are the undeveloped and developed states of the same substance, called the doctrine of *satkāryavāda*.[75] Yet cause and effect are *different* states as may be seen from examining practical consequences: the waterpot is made of clay and holds water, whereas the clay itself, out of which the pot is made, cannot hold water, according to Samkhya.

The Samkhya theory of causality, agreeing with Carvaka, holds that nothing comes out of nothing; that everything must come out of something else (like it).[76] According to Kapila:

> There cannot be the production of something out of nothing (nāvastuno vastu-siddhih); that which is not cannot be developed into that which is. The production of what does not already exist (potentially) is impossible, like a horn on a man; because there must of necessity be a material out of which a product is developed; and because everything cannot occur everywhere at all times; and because anything possible must be produced from something competent to produce it.[77]

All causation depends upon energy *(rajas)* that possesses extensity and quantum. Energy does work; it overcomes resistance. Potential energy is the energy of motion in imperceptible form. Every moment of existence requires a disturbance of original (primordial) equilibrium by means of a preponderance of either *energy, inertia,* or *essence* (the principle and stuff of consciousness). The particular real *(guna)* that is predominant in any phenomenon produces a positive effect, as when *energy* predominates and motion results, while the other two *gunas* (inertia and essence) remain potential. ". . . In any material system at rest the Mass . . . is latent, the Energy latent, and the conscious manifestation sub-latent."[78]

74. Iswara Krishna, *Sankhya Karika*, p. 38, quoting from the *Sāṃkhya-(tattva) candrikā* (by Narayana Tirtha).

75. *Satkaryavada* means that the *karya* or "effect" is *sat* or "existent," before the causal operation begins (Surendranath Dasgupta, *A History*, I, 257).

76. "There is no existence for the non-existent, nor non-existence for the existent" *Bhagavadgita* ii. 16, quoted by Madhava, *Sarva*, p. 226.

77. Kapila, *Samkhya-pravacana-sutra* i. 78, trans. by Monier-Williams, *Indian Wisdom*, pp. 89-90.

78. Seal, *The Positive Science*, p. 5.

In a moving body energy predominates while inertia is overcome.

The difference between the Samkhya theory of causality and the early Buddhist one is instructive. The Buddhists believe that every change brings about something entirely new and at the next moment this new thing is replaced by another new one. The only thing remaining constant in change is the inherited karma passing from one moment to the next. Essentially Theravada Buddhist causality applies only to the flux-life of moral agents. Samkhya, however, is concerned with the totality of events. For Samkhya, all the events in the universe have a substantial background, whereas for the Buddhist phenomenalistic analysis there are only passing forms and qualities. The Samkhya phenomena are substantive like the Jaina, and the changing of states does not indicate a change in the ultimate reals, but only a change in their concomitant conditions such as place, time, and form under the dominance of one of the three *gunas* (reals). (According to the Jaina point of view, both the Buddhist and the Samkhya analysis are correct from different standpoints.)[79]

There are two kinds of cause, according to Samkhya, material and efficient. The material cause enters into the effect and is contained in it, while the efficient cause is external to the effect. To get the oil from the sesamum seed it is necessary to press the seed. This activity of pressing is the efficient cause. The effect, then, is potentially in the cause but must be actualized through the agency of the efficient cause which acts by means of concomitant conditions: place *(deśa)*, time *(kala)*, and form of the thing *(ākāra)*.[80]

There are also two kinds of effects: simple manifestation and reproduction. An example of simple manifestation is to be seen in getting cream from milk; an example of reproduction is the changing of gold into some product, such as a jewel or earring.[81]

Intimately connected with the theory of causality is the Samkhya doctrine of the conservation of energy and the transformation of energy, already implied in the discussion above. The

79. Surendranath Dasgupta, *A History,* I, 257-58.
80. Radhakrishnan, *Indian Philosophy,* II, 258.
81. *Ibid.*

gunas can never be created or destroyed; hence the totality of inertia as well as energy remains constant. The individual products of the process are either being added to or being subtracted from. Growth and decay are only changes of collocation, from potential to actual or from actual to potential. The total energy remains the same even while the world is in process.

> The sum of effects exists in the sum of causes in a potential (or unevolved) form. The grouping . . . alone changes, and this brings on the manifestation of the latent powers of the Gunas, but without creation of anything new. What is called the (material) cause or sum of material causes is only the power which is efficient in the production, or rather the vehicle, of the power. This power is the unmanifested (or potential) form of the Energy set free in the effect . . . the manifestation of an effect is only its passage from potentiality to actuality, a stadium in the process of evolution from possible (future) existence to actual (present) existence. . . .[82]

Evolutionary Doctrine

The process of *prakriti,* once its equilibrium has been upset, is called "evolution" by most writers on Samkhya. Sometimes they appear to hold that Samkhya produced the first theory of evolution, implying by this the modernity of Samkhya. We have no objection to calling this process of *prakriti* "evolution" if we do not confuse this use of the term with the "evolution" meant when one speaks of Darwinian or some other form of biological evolution. The Samkhya theory of evolution is a metaphysical theory. T. M. P. Mahadevan justifiably points this out when he says that Samkhya evolution is not like biological theories of evolution, particularly Darwinian, for the following reasons: (1) *prakriti* does not evolve like the forms of life that biological evolution speaks about, since it is unlike anything discussed in the biological theory (e.g., the amoeba, etc.); (2) *prakriti* can scarcely struggle and evolve in any environment, since it itself *is* the environment; (3) in comparing the evolutes of Samkhya with those in the biological theory, there appears to be no greater coherence in the later evolutes of Samkhya, whereas there does appear to be in the Darwinian scheme.[83] It might be further pointed out that the Samkhya

82. Seal, *The Positive Science*, p. 13.

83. T. M. P. Mahadevan, Samkhya Philosophy, lecture delivered in the Grad-

theory does not explain anything in the sense of showing the how of things nor does it enable us to predict or control events.

According to the Samkhya theory of evolution, the starting point in cosmic history is a condition of equilibrium consisting in a uniform diffusion of the *gunas*. The process of evolution is initiated by *purusha,* "which prevents the doctrine from being a philosophy of nature, pure and simple."[84] *Purusha* supplies the element of awareness to the physical world of *prakriti;* it is the principle of sentience, a principle generally held by the Samkhya philosophers to be completely independent of *prakriti*. Just as *prakriti* can be known by reasoning from effects to causes, so can *purusha.* One can reason from the exhibition of design in the work of *prakriti* to some principle which directs the design. Just as the bodily organism can be seen to contain design, so the universe in its evolution exhibits design, according to Samkhya. *Purusha* (perhaps from *pri,* meaning "male," but in the Rigveda, "person")[85] is the principle for the sake of which nature evolves. The "activity of Nature is for the purpose of the liberation of Soul. . . ."[86]

> Since the assemblage of sensible objects is for another's use; since the converse of that which has the three qualities, with other properties (before mentioned), must exist; since there must be superintendence; since there must be one to enjoy; since there is a tendency to abstraction; therefore, soul is.[87]

The problem faced here by Samkhya is perhaps somewhat similar to that faced by Aristotle, where he says:

> For the final cause is (a) some being for whose good an action is done, and (b) something at which the action aims; and of these the latter exists among unchangeable entities though the former does not. The final cause, then, produces motion as being loved, but all other things move by being moved.[88]

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uate School of Madras University, October 23, 1951.

84. Hiriyanna, *The Essentials,* p. 113.

85. M. Monier-Williams, *Sanskrit-English Dictionary* (new ed.; Oxford: Clarendon Press, 1899).

86. Banerji, *Sankhya Philosophy,* p. 57.

87. *Sankhya Karika,* 17, in Iswara Krishna, *Sankhya Karika.*

88. Aristotle, "Metaphysics," trans. W. D. Ross, in *The Basic Works of Aristotle* (New York: Random House, 1941), Bk. XII, chap. vi, 1. 1072b.

In Samkhya one may make the necessary substitution and derive the following sentence, analogous to the last one above, quoted from Aristotle: The final cause, then, produces motion as producing liberation, but all other things move by being moved. Samkhya has material and efficient cause in *prakriti*. What Aristotle calls "final cause" is supplied by *purusha*. But where Aristotle defines final cause in such a way that it is identifiable with God, Samkhya does not hold that *purusha* is God, or that *purusha* is the ultimate principle of teleology as is the Prime Mover. *Purusha* is a prime mover, eternal, the principle of superintendence,[89] knower, and enjoyer. It plays both the role of Prime Mover and individual rational soul as found in Aristotle.[90]

Purusha is "plural" according to Samkhya doctrine, whereas *prakriti* is single. The evolutes of *prakriti*, such as individual bodies, are of course plural in some sense since they can be differentiated (1) by form and position and (2) by the fact that each *human* body at least contains a separate *purusha*. In relation to the human body, the soul is an *x* which lies in the gross body *(puri*, "in the town," plus *śete*, "he is lying").[91] The plurality of *purusha* may be deduced from the observed distinction of the souls (i.e., temperaments) of individual men.[92] But this plurality is seen only in the states of *purusha* in contact with *prakriti*. "The self exists, because there is no proof of its non-existence. It is distinct from the body and from other (material things), on account of the variety (of births)."[93] While *prakriti* is dynamic, having energy *(rajas)*, *purusha* is said to be static, "knowing neither change of place nor change of form."[94] It cannot know anything or will anything without the assistance of some agent in a particular "prak-

89. Gaudapada, *Bhashya*, 17, in Iswara Krishna, *Sankhya Karika*.

90. Aristotle, "De anima," trans. J. A. Smith, in *The Basic Works of Aristotle*, Bk. III, chaps. x-xi.

91. Garbe, *Aniruddha's Commentary* v. 103.

92. See Keith, *Samkhya System*, p. 102, where he speculates about the possibility of Samkhya having a monadology of souls.

93. Garbe, *Aniruddha's Commentary* vi. 1-2. Contrast this view of *purusha* with that to be found in the *Svetāśvatara Upanishad*, 3, 19: "Without hands and feet he runs and takes, without eyes he sees, without ears he hears. He knows everything, but nobody knows him. They call him the supreme, primordial soul."

94. Hiriyanna, *The Essentials*, p. 115.

ritized" individual. *Purusha* in itself is an enjoyer or witness rather than an agent; its psychic life consists in its association with evolutes of *prakriti,* so that the activity of any subject is dependent on its *prakriti* factor. *Purusha* is "known" and "manifested" in a particular body. "Since birth, death, and the instruments of life are allotted severally . . . and since qualities affect variously; multitude of souls is demonstrated. . . ."[95]

If *prakriti* and *purusha* make up the two independent realities of the universe, it would seem necessary that they would be incapable of interaction. Most writers on Samkhya assume that interaction is impossible, on the Samkhya view.[96] Yet from the texts of Samkhya, it may be seen that interaction does occur, and that *purusha* is a medium for consciousness to manifest itself in matter. "And from that contrast (before set forth) it follows, that soul is witness, solitary, bystander, spectator, and passive. Therefore, by reason of *union* with it, insensible body seems sensible . . . and though the qualities be active, the stranger (soul) *appears* as agent."[97] It may furthermore be said that "for the soul's contemplation of nature, and for its abstraction, the *union* takes place, as of the halt and blind. By that *union* a creation is framed."[98] The closest point of union between *purusha* and *prakriti* is the ego, which requires both primordial elements *(prakriti* and *purusha)* in order to exist and function. By ego is meant consciousness-with-pride, said by Vacaspatimisra to mean, "I alone preside and have power over all that is perceived and known, and all these objects of sense are for my use."[99] Another passage illustrates the intimate connection between the functions of *purusha* and *prakriti:* "Since it is intellect which accomplishes soul's fruition of all which is to be enjoyed, it is that, again, which discriminates the subtle difference between the chief principle *pradhāna* and soul."[100]

Soul *(purusha)* and nature *(prakriti)* are in one sense independent and in another mutually dependent. As prime matter,

95. *Sankhya Karika,* 18, in Iswara Krishna, *Sankhya Karika.*
96. Keith, *Samkhya System,* p. 93.
97. *Sankhya Karika,* 19-20, in Iswara Krishna, *Sankhya Karika.*
98. *Sankhya Karika,* 21, *ibid.* (our italics).
99. Iswara Krishna, *Sankhya Karika,* p. 91.
100. *Sankhya Karika,* 37, in Iswara Krishna, *Sankhya Karika.*

prakriti may exist without being influenced by *purusha;* as pure soul, *purusha* may exist without influencing, or being influenced by, *prakriti*. But both, it is clear, get their differentiated being[101] from interaction. To hold, for example, that the soul is like a mirror and only reflecting individual *prakriti* is to say that the mirror is not influenced or affected by its image. Pure soul reflecting, we believe, is different from pure soul not reflecting, and, hence, *prakriti,* on the Samkhya view, does influence *purusha*. The influence is stronger, we shall soon see, than that of mere reflection.

The perplexity of accounting for two allegedly mutually exclusive entities which seem to influence each other, that is, interact, may be resolved by examining Samkhya doctrines themselves. If Samkhya says in one passage that these two entities are completely independent and in another says that they mutually affect each other, and the latter proposition is more fundamental to the system, then Samkhya, on internal evidence, has simply contradicted itself. *Purusha* and *prakriti* do come together, they do mutually affect each other, and they are mutually independent, but only in their most fundamental situation are they such. The proposition, "*purusha* and *prakriti* are completely independent," must be carefully qualified to be correct. It is inapplicable once the process of evolution has been initiated. Taken *dicto simpliciter,* as it usually is, it remains a sour note in the Samkhya system.

Whereas Descartes had God, souls (mind), and matter, Samkhya has *Purusha,* individual *purushas,* and *prakriti*. Both Cartesianism and Samkhya have an initial pluralism, which operationally appears to be a dualism. The third element, God for Cartesianism and generic *Purusha* for Samkhya, are not concerned in the operation of the world after motion once begins. Both appear to be left with two basic substances: soul

101. That is to say, "being" which can be identified in the process, not a mere abstraction (definition), operational differentiation with an independently existing physical thing as opposed to formalistic (verbal) differentiation. As Mario Bunge puts it: ". . . an objective connection among certain features of macroscopic bodies and their environment—i. e., not only a universal and constant relation but also a real connection obtaining between the qualities of force, mass and acceleration themselves, whether they are measured or not" (*Metascientific Queries* [American Lecture Series, ed. Marvin Farber, No. 341 (Springfield, Ill.: Charles C. Thomas, 1959)], p. 92).

and matter. But where Descartes identifies soul with thought, Samkhya identifies matter with thought, for thought is a function of *prakriti*.

To bring out the difference between the dualism of Samkhya and the dualism of Descartes, let us adopt the following procedure "as if." Let *purusha* equal "soul-thought" and let *prakriti* equal "matter," where "soul-thought" and "matter" are Cartesian notions. Then, according to Descartes, the individual *purusha* pushes the pineal gland to set *prakriti* in motion; the individual *purusha,* in turn, receives a shock through the working of *prakriti* on the pineal gland. For Samkhya, on the other hand, soul-thought (originally) upsets the equilibrium (playing the role of Descartes' God) of matter, but, in the individual, soul-thought and matter do not interact in the same way. *Soul-thought* and *matter* do what reflects *matter;* there is no interchange of circuits through the medium of a third nature such as Descartes' pineal gland. This is the metaphysical situation.

When we examine the situation with regard to ethics, however, there is a radical change. Here matter for Samkhya, through the agency of the intellect, *acts for the sake of* soul-thought. Intellect's function is to understand that soul-thought is really independent of matter. Although intellect (an evolute of matter)[102] cannot ever know soul-thought, it nevertheless knows that intellect itself and ego are not truly soul-thought. All this can be known by matter.

For Samkhya soul and matter are radically different and hence cannot be placed together in the combination soul-knowledge. Knowledge is a function of mind and intellect, whereas Samkhya has the soul divorced from mind and intellect, not partaking of the nature of *prakriti*. Following the suggestion of Gilbert Ryle, whereas the mind-soul is the *ghost* of the Cartesian machine,[103] *purusha* is a nondynamic push button in the Samkhya cosmic machine and also a sentient mirror in the Samkhya individual machine. The very heart of Samkhya

102. See Ruben, "Die älteste," p. 242.

103. Gilbert Ryle, *The Concept of Mind* (New York: Barnes and Noble, 1950), chap. i. Agehananda Bharati of the University of Washington (Seattle) reports that C. V. Raman, India's Nobel physicist, has called *purusha's* role similar to that of a catalyst in chemical processes.

inconsistency is shown in these self-contradictory notions. This is a good example of where logic leads without ontology and where metaphysics leads without logic.[104] Having determined now the essential differences between *prakriti* and *purusha,* let us now examine the Samkhya account of the "evolution" of *prakriti.*

The evolution of *prakriti,* once set in motion by *purusha,* is from the undifferentiated and indeterminate to the differentiated and determinate. The incoherent, homogeneous, cosmic whole becomes coherent and heterogeneous. As conceived by Seal, there are six stadia in cosmic evolution which we have summarized as follows:

1. *Prakriti* in a state of equilibrium;
2. the universe where matter is knowable by consciousness;
3. matter divided into an object-series and a subject-series where the ego is the coordinating principle of the subject-series and individual mind-stuff *(ahamkara)* is the coordinating principle of the object-series;
4. differentiation of motor and sensory stuff in the subject-series and actualizing of material potencies in the object-series;
5. coherent, integrated individual substances having specific but fluent properties;
6. the reverse process from integration and individuality back to the original equilibrium of *prakriti.*[105]

While this process is being carried out, karma is operating through merit and demerit but has no material substance and provides no energy. Karma operates by "removing" the arrest of a relatively stable equilibrium in a given collocation, just as the owner of a field removes the barrier of a reservoir or tank in flooding a dry field. The action of volition is comparable to that of karma (in the Western Faculty Psychology sense of "volition"). According to Banerji:

> The irresistible, inexorable force of *karma* is whirling us along

104. A play on Professor Ernest Nagel's well-known essay, "Logic without Ontology."

105. Seal, *The Positive Science,* pp. 8-10.

> through a succession of mundane existences, and these will not cease so long as their dispositions continue to operate. But the dispositions cannot operate unless the soul is invested with a frame and thereby rendered amenable to their influence. . . . Thus there is a continual action and reaction going on between the states of intellect (dispositions having karmic consequences) and the state of body.[106]

Karmic action is in some sense identifiable with *prakriti* and not with *purusha,* since the soul "as it *really* is" is free of karma. We shall discover later, however, in considering Samkhya ethics, that karma is never defined or described as clearly by Samkhya as by Jainism. All we wish to mention here in passing is that karma, in some sense, is involved in the evolution of *prakriti,* presumably in the "subject-series" to use Seal's terminology. So far as the Samkhya metaphysician is concerned, however (as metaphysician and not as moralist), karma is of such minor importance that the entire physical world may, by its own nature, evolve without it. This evolution, nevertheless, must be understood in terms of an atomic development.

Atomism

Every atomic particle of subtle matter *(tanmātra)* is understood in terms of three categories: (1) spatial position, (2) temporal position, and (3) causal position or condition. A fourth possible category, infinite time, is, objectively speaking, nonexistent, being a construction of the intellect.

All physical change is in terms of the motion of atoms in space. The atomic order in time is the relation of antecedence and consequence, such that only the present really exists while the past and future moments of the atom are either potential or sublatent. Time has no objective status apart from the present moment.

Space may be considered from two standpoints, either as extension *(desa)* or as relative position *(dik).* There is no unit of space, however, as there is a unit of time; there may be temporal moments but not spatial ones.

Causation is imported into nature by the action of the in-

106. Banerji, *Sankhya Philosophy,* p. 245, commenting on *Sankhya Karika,* 52, which states: "If there were no conditions there would be no subtle person; (and) if there was no subtle person there would be no evolution of conditions."

tellect which "intuits the phenomenal series of transformations of Energy in this Time-order."[107]

There are three stages in the development of matter:

1. The primordial infinitesimal units of inertia on which Energy does its work;
2. the atomic unit-potentials having energy, following the impregnation of inert units of inertia;
3. the "different classes of infra-atoms, the minutest divisions of which gross matter is capable, but which are themselves complex Tanmatric systems."[108]

The first stage is composed of homogeneous units of inertia (having mass) which are uncreated and eternal. These units are called *bhūtādi*. The second stage is composed of *bhutadi* to which is added potential energy *(rajas)*. The third stage is made up of *tanmatras* that possess physical properties such as penetrability, power of impact, heat, and cohesive and viscous attraction. They also potentially possess the secondary qualities of sound, touch, color, taste, and smell. All of them do not, however, possess all of these properties, as one class of infra-atoms may possess penetrability and another the power of impact. The potentials of the various infra-atoms require transformation by collocation or aggregation for their actualization. We have not, as yet, reached the more familiar atom of Buddhism, Jainism, or Lucretius.

The link between the infra-atoms *(tanmatras)* and the atoms *(paramanus)* is *akasa*, an etherlike stuff. It does not possess impenetrability as do the infra-atoms. Its two forms are (1) nonatomic, as being the formless inertia in *prakriti*, devoid of all potential; and (2) atomic, having, besides the inertia-component, a vibration-potential forming the universal medium in which other atoms move.[109] After atomic *akasa* disintegrates, it receives further action from the original energy *(rajas)* and evolves with an accretion of inertia, a kind of gaseous matter, the atoms of which are charged with touch po-

107. Seal, *The Positive Science*, p. 22.

108. *Ibid.*, p. 24.

109. Following the account attributed to Vijnanabhiksu, *Yogavartika*, as expounded by Seal, *ibid.*, pp. 27-29.

tential or the actual energy of motion called *vāyu bhūta*. This *vayu bhuta* disintegrates and by another charge of energy evolves atoms having heat-and-light-potential and by the combination of heat and motion produces an atom of color-potential. The atom of color-potential is called *tejo bhuta*. It has the properties of color-stimulus and radiation of actual heat and light while maintaining its impact-potential. The properties of taste-potential, viscous attraction, smell-potential are all evolved in similar fashion, that is, by accretion of inertia or energy to already existing atoms.

The difference between *tanmatra* and *bhuta* is a difference of subtle as opposed to gross matter. Subtle matter is beyond the ken of our senses, while gross matter is what makes up the world of objects and perception. The main atoms that finally evolve are the following:

Samkhya	(Democritus)
1. The *akasa* atom possessing penetrability	(void)
2. The *vayu* atom having impact or pressure	(air)
3. The *tejo* atom having heat and light	(fire)
4. The *ap* atom possessing viscous attraction	(water)
5. The *bhumi* atom having cohesive attraction	(earth)[110]

The differences among these atoms are ultimately dependent upon the three *gunas* (reals) that underly all *tanmatras* and *bhutadis*.

The Samkhya atomists conceive of two types of atomic grouping: mechanical collocation and fusion. In fusion the parts are lost in the totality, while in aggregation the parts are distinct and in a sense independent.[111]

Atomism and Chemical Theory

The atomic theory of Samkhya is perhaps more subtle and complex than the atomic theories of Buddhism and Jainism in India and the atomists in Greece. We do not suggest that this makes the Samkhya theory more convincing or empirical.

110. *Ibid.*, pp. 42 ff.
111. Utpala's Commentary on Varāhamihira's *Vṛihatsāṃhita*, cited by Seal, *ibid.*, p. 56.

At times, it appears to come fairly close to some of the speculation in post-Renaissance Europe by the alchemists and early chemists. If there is any speculative superiority in Samkhya over Greek atomism, it consists in its possible fruitfulness for chemical atomism. Samkhya atomic theory may remind us of Dalton's (1766-1844) which holds that:

> There are three distinctions in the kinds of bodies, or three states, which have more specially claimed the attention of philosophical chemists; namely, those which are marked by the terms elastic fluids, liquids and solids. . . . These observations have tacitly led to the conclusion . . . that all bodies of sensible magnitude . . . are constituted of a vast number of extremely small particles, or atoms of matter bound together by a *force of attraction,* which is more or less powerful according to circumstances. . . .[112]

According to Samkhya the dispositions of the atoms depend upon their components of inertia and energy *gunas,* and they may come together as mere aggregates or as fusions. We suggest that the notions of inertia, energy, and fusion are advances over the older atomic notion found in classical Greece that atoms are dropping, swerving, and hooking together, so far as chemical theory is concerned.

The speculation of Samkhya did not take place in a vacuum but probably depended heavily, in its later manifestations, on Indian chemical "science" of its time. Chemistry in India, as in the West, was a useful art closely associated with metallurgy and medicine. Patanjali *(ca.* 150 B. C.) wrote a treatise, the *Loha-śāstra* or *The Science of Iron.* Nāgārjuna, the Buddhist philosopher (early Christian era), sometimes called the Paracelsus of India, systematized the study of mercury *(rāsa).* By the sixth century A. D. , it is said, Indian chemists understood calcination, distillation, steaming, and fixation.[113] These same chemists were able to prepare perchloride of mercury, sulphide of mercury, vermilion from lead, copper from sul-

112. John Dalton, *New Systems of Chemical Philosophy* (1808/10), quoted by C. D. Dampier-Wethem, *A History of Science and Its Relations with Philosophy and Religion* (New York: Macmillan Co. , 1931), p. 227.

113. Benoy Kumar Sarkar, *Hindu Achievements in Exact Science* (New York: Longmans, Green and Co. , 1918). See also B. B. Dey, "Scientific Thought in Ancient India," *History of Philosophy Eastern and Western,* ed. S. Radhakrishnan *et al.* (2 vols. ; London: George Allen and Unwin, 1952), I, 464-65.

phate of copper, zinc from calamine, and copper from pyrites.[114] The *Brihat-Samhitā* (sixth century A. D.) of Varāhamihira was a scientific encyclopedia remarkable for its section on directions for experiments and descriptions of various scientific apparatuses. There is reason to believe that Saracen chemistry, which was introduced into Europe after the eighth century A.D., was indebted to Indian chemistry. Evidence for this is found in the *Kitaba al Fihrist* of Nadim *(ca.* A.D. 950), an encyclopedia in Arabic which gives credit to Indian sources.[115]

The Indians excelled in industrial chemistry long before extensive trade with Europe began with the opening of the sea road to the Indies by Vasco da Gama. The Indians were, relative to the Europeans, advanced in bleaching, dyeing, calico printing (calico is named for the western Indian seaport, Calicut, discovered by da Gama), tanning, soapmaking, glassmaking, manufacture of steel, preparation of cements, gunpowder, and fireworks.[116] It is still not certain as to whether gunpowder was first developed in India or China in about the fifth or sixth century A.D.[117] It was Pliny the Elder's opinion, according to Sarkar, that none excelled the Indians in the first century A. D. in industrial development.[118] Allowing for philosophical lag, it would appear likely that Indian philosophers of middle Samkhya would be impressed and influenced by developments in chemistry and attempt to fit new information into their meta-

114. P. C. Ray, *A History of Hindu Chemistry* (2nd ed.; Calcutta, 1909), cited by Sarkar, *Hindu Achievements,* p. 41.

115. Sarkar, *Hindu Achievements,* p. 41. See also R. C. Majumdar, H. C. Raychaudhuri, and Kalikinkar Datta, *Medieval India* (London: Macmillan Co., 1949), p. 275. Crucible steel may have been made quite early, called *wudz* or *ukku* (Kanarese for steel); see Cyril Stanley Smith and R. J. Forbes, "Metallurgy and Assaying," *A History of Technology,* ed. Charles Singer, E. J. Holmyard, A. R. Hall, and Trevor I. Williams (5 vols.; Oxford: Oxford University Press, 1954-59), III, 35.

116. For a detailed account of Indian products desired by Europeans, see Henry Hersch Hart, *Sea Road to the Indies* (New York: Macmillan Co., 1950).

117. See *Journal of the North China Branch of the Royal Asiatic Society,* new series, VI, 82, cited by Sarkar, *Hindu Achievements,* p. 45.

118. In examining the text of Pliny's *Natural History,* we were unable to corroborate this contention. If any Southeast Asians were considered superior in this regard by Pliny they were the people of Ceylon (D. Detlefsen [ed. and trans.], *C. Plinii Secundi naturalis historiae* [2 vols.; Berlin: Weidmann, 1856], vi. 22; xii. 41).

physical systems. This brief review of Indian chemistry gives some indication that perhaps Samkhya atomism may have been influenced in such notions as "fusion" by progress in Indian chemistry.

View of Deity

Nirīsvara Samkhya (no-God Samkhya), like Jainism, not merely ignored deity, but denied its existence and efficacy. The fixed order of the universe, the Samkhyas felt, requires no explanation apart from the uncreated *prakriti* being acted upon by the uncreated *purusha.* Teleology is to be understood as the movement of *gunas* toward the enjoyment of salvation for individual souls. (The teleological principle in the universe is called *purushārthatā,* perhaps to be understood as a tender preserver without Whiteheadian personality.) Those who make the charge of atheism against these Samkhyas

> (. . . are inconsistent) because the existence of a supreme lord is unproved. Since he could not be either free (from desires and anxieties) or bound by troubles of any kind, there can be no proof of his existence. Either way he could not be effective of any creation. (That is, if he were free from anxieties he could have no wish to create; and if he were bound by desires of any kind, he would then be under bondage, and therefore deficient in power.)[119]

What Kapila here intends is that since the existence of God is unproved, there can be no justifiable stigma attached to not believing in him. Gaudapada, in commenting on the *Samkhya Karika,* 61, says:

> . . . How can beings endowed with qualities proceed from Iswara, who is devoid of qualities? or how from soul, equally devoid of qualities? Therefore (the causality) of nature is rendered probable. Thus; from white threads white cloth is fabricated; from black threads black cloth: and in the same manner, from nature, endowed with the three qualities. . . . Iswara is without qualities.[120]

This argument shows that if there is a God, he is not a Creator on Gaudapada's view. It is also implied that anything void

119. Kapila, *Aphorisms,* 96, quoted by Monier-Williams, *Indian Wisdom,* p. 98.
120. Gaudapada, *Bhashya,* 61, in Iswara Krishna, *Sankhya Karika.*

of qualities is not likely to find a place in the Samkhya universe, since everything consists of either *prakriti* or *purusha*, both of which have qualities. So far as Gaudapada is concerned, there is no third nature and hence God is nonexistent.

Another aphorism of Kapila touches on the possibility of *purusha's* being a Creator:

> There is a ruling influence of the soul (over Prakriti) caused by their proximity, just as the loadstone (draws iron to itself). That is, the proximity of soul to Prakriti impels the latter to go through the steps of production. This sort of attraction between the two leads to creation, but in no other sense is soul an agent or concerned in creation at all.[121]

Aniruddha feels that the existence of Iswara "cannot be proved . . . because he cannot be either of the two: bound or liberated. . . ."[122] And in any case he could not be "the maker of real things."[123] For if Iswara is bound he cannot be Lord because of his association with merit and demerit, and if he is liberated then he could not desire nor act.[124]

The Samkhya philosophers are content to refute the arguments of contemporary *astikas* who make of Iswara a Creator. They do not go as far as the Jains in fabricating arguments to show that the notion of God is useless as well as logically and empirically impossible.

Status of Universals

Although we have not discovered any direct discussion of the Samkhya position on universals in Samkhya literature, we believe that this opinion may be reconstructed to some extent on the basis of Aniruddha's discussion of inference. He says, "The (constant) connection is not established by once apprehending. . . . Invariable concomitance is the constant association with a characteristic property (and belongs either) to both or to the one."[125] Invariable concomitance, however, is

121. Kapila, *Aphorisms*, 96, quoted by Monier-Williams, *Indian Wisdom*, p. 98.
122. Garbe, *Aniruddha's Commentary* i. 92-93.
123. *Ibid.* i. 94.
124. *Ibid.*
125. *Ibid.* v. 28-29.

not a "new category," according to Aniruddha and Vedantin Mahadeva. They both agree that invariable concomitance is not the result of an innate power in the situation but is something "imposed (by us on the things)."[126] In adopting this phenomenalistic analysis of association, these two Samkhya philosophers have indicated the probability that they regarded universals as also imposed by us. We believe that their discussion, which is unfortunately excessively brief, gives us at least one clue to their possible approach to the problem of the nature of similarity. Similarity is imposed by us. We hold, therefore, that Samkhya is more probably nominalistic or at most conceptualistic, rather than realistic, in its treatment of universals.

Ethics

Samkhya ethics aims at releasing the individual from the bondage of matter by means of knowledge. Unlike Buddhism and Jainism, Samkhya is not primarily concerned with ethics. In examining the Samkhya literature one sees that although ethics may be the primary initial consideration, the Samkhya philosophers appear to get carried away by the fascinating task of explaining the operation of the universe. Samkhya philosophy is primarily metaphysics and not ethics, a fact which differentiates it from the three systems of Indian philosophy we have already discussed. Perhaps it would not be unfair to say that Samkhya is philosophy in the sense of "love of wisdom" rather than in the sense of "love of salvation."

The paucity of ethical discussion is what probably leads the follower of Samkhya metaphysics to search for a more monumental ethics, which he is likely to find in Yoga, since it is closely allied to Samkhya in its metaphysics. As has been justly said, "That Yoga implies the existence of Samkhya, does not require to be proved."[127] For Samkhya ethics is a mere skeleton compared to the flesh and blood we have found in Buddhism and Jainism. It is for precisely this reason that

126. *Ibid.* v. 32.
127. Fitz-Edward Hall (ed.), *Vijnana Bhikshu. Sankhya-Pravachana-Bhashya,* (Bibliotheca Indica, Work 27, Nos. 94, 97, 141 [Calcutta: Thomas, 1856]), p. 26 n.

Samkhya has also not become a religious creed. The situation perhaps is like that to be found in European philosophy after the Renaissance, where the philosophies have but few adherents. The appeal of Samkhya is intellectualistic rather than emotionalistic: it requires mastery of unpalatable abstractions not easily clothed in myth. In this sense, Buddhism and Jainism appeal, like popular Roman Catholic doctrine, to the masses, of whom it is said they need not understand to believe. The founders of Samkhya, furthermore, since they were interested primarily in metaphysics and not in the salvation of mankind, were not readily accepted by the masses looking for a surcease of misery and suffering in this world.

We have already stated that Samkhya rejects ritual as an efficacious means to release from bondage. According to Aniruddha, the reason for this rejection is that "From pain comes pain, as relief from cold is not (effected) by affusion of water."[128] This cryptic statement means, according to Vedantin Mahadeva, "If liberation were to be brought about (by ritual) works, then, since such works comprehend pain (caused to the victims), liberation, too, being the product of these (actions), would involve pain."[129] So far as we can discover, the Samkhya philosophers believe in no shortcut to release.[130] Release they consider to be a good thing, but there seems to be a slight hesitation on their part to damn the natural world in the high style of the Buddhists and the Jains.

Samkhya believes that release comes only with understanding and knowledge. Although meditation is not rejected outright as a means to knowledge, it is not in any sense given the high place awarded it by Buddhism and Jainism. This follows from Samkhya epistemology, which explicitly states that the avenues of knowledge are perception, inference, and testi-

128. Garbe, *Aniruddha's Commentary* i. 84.

129. *Ibid.*

130. With the exception of the Yogizing Samkhyas who believed in yogic perception. According to G. P. Conger: "According to Yoga, we recall that *puruṣa* makes his escape from *prakṛti* by disciplines of concentration. This process is commonly regarded as a highly intensified selection of some objects of attention, external or internal, rather than others, and the highly intensified selection is often represented as a narrowing of attention, involving something like a phenomenologist's 'epoché' or a mystic's 'seeing God in a point' ("A Naturalistic Approach to Sāṁkhya-Yoga," *Philosophy-East and West* [Honolulu], III [October, 1953], 238).

mony. Meditation, then, except for the Yogi Samkhyas, cannot be a shortcut, although it may aid one in eliminating influences likely to turn one from the pursuit of knowledge. According to Aniruddha, one of the Yogi Samkhyas, "(The Self) is neither bound, nor is it being liberated; but it is eternally free. But the destruction of the non-cognition (of this eternal freedom) is brought about by meditation. . . ."[131] The freedom, or liberation of the self, requires, as in Spinoza[132] the activity of the mind, not its passivity and bondage to the emotions (which are physical for Samkhya). According to Vedantin Mahadeva, "From non-discrimination of Matter and Soul the delusion that the Self be influenced results, through the influence which is (in reality) exercised on Matter."[133]

The self (soul) in its very nature is free and in bliss.[134] The self is deluded in thinking itself an agent because it is influenced by matter. This influence is manifested by the effects of the intellect and the feeling which is of pain, so long as soul is in the body. "There does sentient soul experience pain, arising from decay and death, until it be released from its person: wherefore pain is of the essence (of bodily existence)."[135] Gaudapada comments on this sutra by saying that the soul experiences pain so long as it is confined to a subtle body, "as long as migratory body does not rest. . . ."[136] Release is achieved when the self realizes that it is not subject to pain, since it is not of *prakriti,* the generator of pain. ". . . The body is pain, because it is the site of pain; the senses, objects and perceptions (are pain), because they are what lead to pain. . . ."[137]

The problem facing Samkhya is not unlike that facing Spinoza. Just as Spinoza believes in the necessity of events happening as they do because of the nature of things, Samkhya

131. Garbe, *Aniruddha's Commentary* i. 160.

132. Benedict Spinoza, *The Ethics, The Chief Works of Benedict De Spinoza,* trans. R. H. M. Elwes (Bohn's Philosophical Library [2 vols.; London: G. Bell and Sons, 1898]), Vol. II, Bk. V, proposition 6.

133. Garbe, *Anniruddha's Commentary* vi. 27.

134. R. G. Bhandarkar, "The Sankhya Philosophy," *The Indian Philosophical Review* (Baroda), January, 1919.

135. *Sankhya Karika,* 55, in Iswara Krishna, *Sankhya Karika.*

136. Gaudapada, *Bhashya,* 55, in Iswara Krishna, *Sankhya Karika.*

137. Garbe, *Aniruddha's Commentary* ii. 1.

likewise believes that the evolution of *prakriti* occurs by necessity. Samkhya philosophers do not say, however, that nothing can be done about this. Spinoza believes that we may become free by means of the intellectual love of God (the highest cognitive experience); Samkhya believes that we may become free by means of the realization that we *are* free through knowledge of our soul's place in the scheme of things. Spinoza says, however, that emotions (part of *prakriti* for Samkhya) need not necessarily be bad,[138] whereas Samkhya believes all emotions are pain-causing since they follow from *prakriti*. Bondage for Spinoza is the result of misunderstanding our place in nature (God); for Samkhya bondage is the result of misunderstanding that we are already free (by the very definition of "self").

Misunderstanding that we are already free, however, is complicated in Samkhya by the action of karma, "of the invisible power."[139] It is karma that operates by means of *prakriti* to create conditions (even in the sense organs themselves) to prevent us from realizing that we are free.

We are somewhat startled in Aniruddha's *Commentary*, after he speaks of karma as "the invisible power," to discover in his next section that karma is identified with the gross elements: "The wandering through mundane existences, i.e., the (continual) destruction (of the body), depends on . . . its arising from the (gross) elements, that is to say: on merit and demerit."[140] This leaves us in a puzzling situation. On the metaphysical theory of IswaraKrishna and Kapila, *prakriti* is set in motion by *purusha* and then evolves by itself. It now appears that *prakriti*, under the influence of karma, evolves, and, furthermore, that the gross elements (made up of atomic units) are in some sense identifiable with karma, according to Aniruddha. Karma, however, is something that results from the ethical decisions of individual egos. Is it correct to say that individual egos somehow create atomic aggregates, such as the sense organs? This kind of confusion is what probably has led Mukerji to make a sharp division between the "real Samkhya" and the "false Samkhya." But until further critical sifting is done by Sanskrit scholars it is by no means clear

138. Spinoza, *Ethics*, Vol. II, Bk. V, proposition 8.
139. Garbe, *Aniruddha's Commentary* ii. 36.
140. *Ibid.* iii. 3.

what such a division would entail. The suggestions of Dasgupta[141] and Keith[142] are a possible starting point, but they are little more than intimations of greater problems to come in trying to determine precisely the major divisions of Samkhya.

Aniruddha has taken Samkhya to a place, on the one hand, where its karma theory is much like that of the Jains, where there is karmic *matter*. Yet, on the other hand, he has taken it to a point where it skirts the Vedantin theory of *māyā*, where *prakriti* is in some sense an illusion. If we accept the doctrines of Iswara Krishna and Kapila, we may be forced to reject much in Aniruddha. Before we decide which doctrines of which Samkhya we can accept, much more philological groundwork must be done.[143]

Ethics and Epistemology

Knowledge, on the basis of Samkhya epistemology, is that which is gotten by means of perception, inference, or testimony. Testimony must be in agreement with perception and inference. It is on the basis of inference that Samkhya establishes the existence of *purusha*, while *prakriti* to a large extent is known by perception. Perception and inference are both dependent on evolutes of *prakriti:* the five senses and the intellect (which are physical) are what provide knowledge for the individual. *Purusha* is known (for it *is* known) by means of the five senses and the intellect. The question we raise is this: In what sense can *purusha* be known by the five senses and the intellect, since it has no properties or even analogous properties which are available to these senses? *Purusha*'s function is to mirror and also to watch and to see (which of course it cannot do without organs); it has no other function. Assuming that purusha does not mirror itself (and there could be no point in assuming otherwise in Samkhya), the only things it can mirror are the evolutes of prakriti, which in essence are pain-giving and karma-producing.

The situation from another point of view is that there appears to be no function for *purusha* except to start *prakriti* on

141. Surendranath Dasgupta, *A History*, I, 212-26.

142. Keith, *Samkhya System*, chap. viii.

143. See D. M. Datta, "Some Difficulties of the Sankhya System," *The Philosophical Quarterly* (Calcutta), Vol. XI (July, 1935).

its evolving way (which it cannot do on the basis of the definition of *purusha* as a seer rather than a doer). For the individual, *purusha* has the function of providing an entity which migrates. But since what the Samkhya wishes is the absence of migration, it would seem that this could be easily achieved by eliminating the individual *purusha* which performs no function whatsoever except to create a gratuitous explanation. The individual *purusha* can be liberated when the intellect realizes that it exists and is separate from the intellect and ego. But on the Samkhya theory of knowledge the intellect can never know this. The intellect is confined to knowledge of *prakriti*. On the basis of Samkhya epistemology, then, *purusha* is unknowable, while on the basis of Samkhya metaphysics and ethics, *purusha* is known and functions as the migrating agent. We do not wish to go as far as did Fitz-Edward Hall when he said, "On the assumption that it [Samkhya] has come down to us legitimately elucidated, it is next to impossible, notwithstanding its fantastic show of method, to trace, in it, a single vestige of consistency . . . ,"[144] but we do feel that much work remains to be done by Sanskrit scholars to determine what precisely is the corpus of Samkhya literature.

Role of Karma

Samkhya places much less emphasis on karma than do Jainism and Buddhism. It does not deny the existence of karma as does Carvaka, but it does de-emphasize it. The action of karma is not explicitly described. There are a few passages which suggest that karma is important. The difficulty of attributing karma influences to the soul is obvious, since the soul cannot be anything but free. Karma influences, evidently, are the result of the ego's mistaking the ego for the soul, the ego being an evolute of *prakriti* and the soul being identifiable with *purusha*. The soul cannot be defiled by karma and hence migrates in its pristine form. Now if the body dies and only the soul persists after each death, then one would presume that karma would die with the body since it can only persist in connection with the body. Karma, according to the Samkhya view, could not persist after death for there is nowhere for it to go since it cannot abide in the soul.

144. Fitz-Edward Hall, *Vijnana Bhikshu*, p. 7.

The view of Jainism, that karma actually enters the soul, is more logical and metaphysically accountable than the view of Samkhya that karma must (1) disappear at death and (2) reappear at the rebirth of the soul in a new body. The connection between soul number one and soul number two, where soul number two is a rebirth of soul number one, with regard to karma is quite inexplicable in the Samkhya doctrine.

If this be granted, Samkhya cannot account for persistent evil in the world. This much may be said, however, that even if the Samkhya view is logically and metaphysically less satisfactory than the Jaina, so far as naturalism is concerned both views are equally unsatisfactory as being untestable in experience. From the logical point of view Samkhya's explanation of karma is less satisfactory than the Buddhist (which has an account of karmic inheritance) and the Jaina (which has an account of the soul's being impregnated by karmic particles).

Virtue and Vice

According to Iswara Krishna, "By virtue is ascent upwards, by vice descent below; by knowledge is liberation, and by the reverse bondage."[145] At liberation, migration ceases, but in bondage one mistakes nature for soul or the sense organs for soul.[146] Iswara Krishna, in the succeeding sutra, says, "From dispassion (follows) absorption into Nature; from foul passion birth into the world; from power removal of obstruction; from the contrary the reverse."[147] By this is meant, according to Gaudapada, that one with dispassion, yet without knowledge, is resolved into the elements, but because he is without knowledge (of the distinction between *prakriti* and soul) he is reborn even as the individual of "foul passion" is reborn.

Ignorance consists of obscurity, illusion, extreme illusion, gloom, and extreme gloom. By *obscurity* is meant mistaking nature, intellect, egoism, and the five senses for the soul. *Illusion* consists in holding that "I am perfect." *Extreme illusion* is enjoyment in the objects of the five senses, and *gloom* is the feeling that others will enjoy the sense objects while oneself may be deprived of them. *Extreme gloom* arises when

145. *Sankhya Karika*, 44, in Banerji, *Sankhya Philosophy*.
146. Gaudapada, *Bhashya*, 44, in Iswara Krishna, *Sankhya Karika*.
147. *Sankhya Karika*, 45, in Banerji, *Sankhya Philosophy*.

one fears that one will die and therefore not continue in the enjoyment of the senses and one's possessions.[148]

There are eight means to perfection according to Iswara Krishna, including reasoning, study, suppression of pain, intercourse with friends, liberality, and two more.[149] Reason allows us to make the all-important distinction between *prakriti* and *purusha*. This same knowledge may be gotten from taking the advice of teachers in the means of suppressing pain and by making offerings "of abode, medicine, staff, water-pot, food and clothes to holy men. . . ."[150]

In the light of the ethical passages we have examined, Samkhya means by *knowledge* something both more and less than what is meant by knowledge in naturalism. The knowledge of Samkhya is really a knowledge that the external world is the cause of suffering (bondage), that the soul is separate from the physical world and must be thoroughly understood to be separate for salvation to occur. The knowledge that the soul cannot be affected by the external world leads to this: that one acts as if the external world (and most of the internal world including the mind and ego) has no influence on the soul. Karma can have no *real* influence on the soul but only on the ego. The real self is not contaminable. Ignorance is the belief that there is a real connection between the soul and the ego, such that we must do what the ego desires. But the ego is an evolute of *prakriti*, hence its desires can lead only to bondage and pain.

Summary

The naturalism of Samkhya may be summarized in the following way:

1. Early Samkhya epistemology is naturalistic in its insistence upon the use of perceptual knowledge and in its unqualified acceptance of correspondence and coherence ultimately dependent upon correspondence.

148. Mukerji, *Samkhya*, p. 228.

149. *Sankhya Karika*, 51, in Banerji, *Sankhya Philosophy*. The "two more" are not named, nor is the eighth one.

150. Gaudapada, *Bhashya*, 51, in Iswara Krishna, *Sankhya-Karika*. This last injunction, in spite of its being held by atheists, would have raised a cry from the Carvakas.

2. The Samkhya atheistical position is clearly naturalistic, although the force of this is somewhat lessened by the adoption of *purusha,* a kind of universal spirit.

3. The Samkhya theory of evolution (the unfolding of *prakriti)* is naturalistic when once *purusha* has initiated movement.

4. The proposed nominalism of Samkhya is naturalistic.

5. The emphasis on the workings of *prakriti* rather than emphasis on salvational ethics is a naturalistic tendency of Samkhya. We do not mean to imply by this that emphasis on ethics is necessarily nonnaturalistic, but only that, since Samkhya has slight concern with ethics as compared with its outstanding concern of nature, its trend is naturalistic.

The major concern of Samkhya is to explain the workings of nature. We maintain that this cannot be wholly explained by its peculiar type of salvational ethics. Most of the ethical discussion of Samkhya occurs in the later commentators; the earlier emphasis is on cosmology and secondarily on epistemology. The major interest of Samkhya is the primary interest of early Greek naturalism; indeed Samkhya, with Carvaka, more closely approximates the Ionian and Abderian philosophies than do any of the other Indian systems. Samkhya is as naturalistic as Aristotle and more naturalistic than the Stoics. Perhaps one should place the adherents of Samkhya on a level with the Epicureans despite the latter's giving primacy to ethical considerations.

Samkhya is desirous of understanding the processes of nature but cannot explain its initial movement without introducing, like Aristotle, a distinct and transcendent element. It does not allow a Prime-Mover-as-God for this, not because it has not conceived the possibility, but because it has rationalistically examined the arguments favoring this position and rejected them. It therefore has the principle of sentience or spirit initiate the movement. We do not know why Samkhya rejects the doctrine of uncreated motion as well as the uncreated *prakriti* and *purusha.* Evidently this is a strong Upanishadic hangover in the system.

The belief that the principle of sentiency must be introduced from outside of nature is a nonnaturalistic element in Samkhya cosmology and leads to its greatest inconsistencies. These inconsistencies are as follows: (1) the untenable du-

alism of spirit and matter; (2) the essential uselessness of spirit; and (3) the attribution of physical properties to spirit. It is interesting to note that one of the arguments used by Samkhya to point out the absurdity of their opponents' introducing deity into their systems applies equally to Samkhya's own introduction of *purusha*. Their argument is that their opponents say that the existing misery induced God to create a world to relieve the misery. Yet, on the other hand, it was the very existence of a created world that caused this misery. Samkhya's own argument in favor of the existence of *purusha* is in no way superior. This argument is: The existing misery caused by *prakriti* (nature) induced *purusha* to put *prakriti* into operation, and, on the other hand, it was the existence of *prakriti* that caused the misery in the first place.

Whatever is outside nature is presumably different from nature itself or it would not be outside. If this is so, then *purusha* is simply *outside* and that is an end of the matter for Samkhya and for us. But not so. *Purusha* (spirit) turns out to be *outside* nature (as the nonnatural initiator of motion in nature) and also *inside* (as the individual souls). How initiation of motion can bring about sentiency (although not a nonnaturalistic view) is not explained, or how there can be any localization of the individual soul in a particular *prakriti* conglomerate (mind-body system). The point is that Samkhya makes *mind* part of nature, which is a long step toward a thoroughly naturalistic metaphysics.

We are tempted to say that the ignorance of the unliberated is simply aggravated, rather than alleviated, by Samkhya metaphysics. Individual souls are "in some sense" *in* individual bodies without having any physical properties. But they are not affected by bodies; they only seem to be affected. Bondage consists in precisely this: that one wrongly believes that his soul is connected to his body (hardly an unexpected delusion considering that the soul is *in* the body).

It is not a long step from this to the doctrine of Advaita (Vedanta) that the body and *prakriti* are really *maya* or illusion.[151] Had Samkhya taken this step it would have eliminated

151. See T. M. P. Mahadevan, *The Philosophy of Advaita* (London: Luzac and Co., 1938), p. 216: "Maya can be studied from three different standpoints. The man in the street considers the world of maya to be real . . . he who is learned

several contradictions. On the other hand, it would have raised a new and insuperable problem, the one which haunts Vedanta. This problem is to account for the illusion of matter and body rising out of pure spirit.

Samkhya theory of knowledge is naturalistic. The two acceptable avenues of knowledge are perception and inference based on perception. As we have seen, testimony is not self-guaranteeing but depends upon perception or inference. Samkhya does not admit the validity of intuition or authority. In this, Samkhya is in agreement with later Carvaka, which admits perception and inferential knowledge to be alone possible. For Kapila and Iswara Krishna there is no superempirical method of knowledge.

A strong naturalistic note is introduced into Samkhya by its later commentators such as Vijnanabhiksu and Aniruddha. They lay claim to a third avenue of knowing: yogic perception. This is strong evidence of the historical wedding, after the seventh century, of Samkhya and Yoga. It is not evidence for the thesis of Guénon, however, that "The darshanas[152] are therefore 'points of view' within the Hindu doctrine, and not, as some orientalists imagine, competing or conflicting philosophical systems."[153]

What Guénon is saying in effect is that since the Indian *astika* systems occur in a predominantly Brahmanical culture (and are not strictly incompatible with it), and since they are all concerned with salvation,[154] therefore they are really different aspects of the same point of view. This would be tantamount to holding that Scholasticism, British Empiricism, Continental Rationalism, and German Idealism are simply "points of view" within, for instance, what Toynbee has called "Christian Civilization." The counterpart to Christian Civilization in India is called "Indic Civilization" rather than "Hindu Civilization" and might well be more appropriate for the six systems or even the nine systems (including the *nastika)* than the latter.

in Scripture regards it as unreal . . . and the metaphysician who mainly trusts the powers of his intellect maintains that it is neither real nor unreal."

152. *Darśana* is usually translated as "system."

153. Rene Guénon, *Introduction to the Study of the Hindu Doctrines* (London: Luzac and Co., 1945), p. 231.

154. The Buddhists and Jains who are *nastika* are also concerned with salvation.

If this were not against Guénon's contention, the fact that Samkhya is tacitly *nastika* (rejecting the authority of *sruti)* certainly is.[155]

In order to substantiate his thesis, Guénon draws this illustration. He says that the attitude of orientalists in assuming that Hindu philosophy contains different "systems" of philosophy is like the man who, ignorant of European philosophy,

> . . . chancing to come across a syllabus of university lectures, jumped to the singular conclusion that the scholars of Europe are divided into several rival schools, each with its own particular philosophical system, the principal ones being those of the mathematicians, the physicists, the chemists, the biologists, the logicians and the psychologists. . . .[156]

This unfortunate analogy (or better, disanalogy)[157] is vitiated because the Indian *darśanas* are not special sciences but are philosophies. The Nyaya system, it may be granted Guénon, is primarily concerned with logic, but it also explicitly contains a theory of knowledge, a metaphysics, and an ethics; in short, it is a philosophical system and not a formal science. Guénon's point would not be one whit improved if Whitehead and Russell had begun their *Principia Mathematica* with a theory of knowledge, followed by a theory of physical reality (or appearance), and concluded with an exhortation for the reader to become liberated. But how would he treat physics, chemistry, biology, or psychology? These sciences represent "points of view" to be sure, but in what sense are they analogous to the "points of view" of the Hindu *darsanas?* There is one physics in the European university curriculum, whereas there are as many cosmologies as there are Hindu systems. There is one biology (Guénon wrote before the eruption of the Lysenko controversy) in the curriculum, whereas there are as many theories on the physical nature of man as there are Hindu systems. Guénon's charge that orientalists who treat Hindu "points of view" as systems are endowed with "intellectual myopia"[158] is perhaps a reflexive one.

155. Radhakrishnan, *Indian Philosophy,* II, 302.

156. Guénon, *Introduction to Hindu Doctrines,* p. 232.

157. "Disanalogy" is a term for which we are indebted to Professor Irving M. Copi, *Introduction to Logic* (New York: Macmillan Co., 1953), p. 319.

158. Guénon, *Introduction to Hindu Doctrines,* p. 232.

Perhaps all that Guénon really meant to say is that Hinduism is a general outlook on life and the combination of *darsanas* makes up the *Weltanschauung* of Hinduism. With this *acharya*-type proposition we have no quarrel. If we examine the *darsanas* systematically, however, we find that they are not compatible with each other. We will not even willingly admit they have the same goal. The goal of the Absolutistic Vedantist is not the same as the goal of the Samkhya philosopher, although both systems are generally denominated Hindu ones. Only careless theosophism would maintain that the differences within the Hindu fold of philosophies are relatively unimportant and ultimately that all contradiction is resolved in a great nonlogical synthesis. We say nonlogical advisedly because it patently could not be a logical one. The external world cannot both have substantial existence, as Samkhya holds, and at the same time be illusory, as Vedanta claims. If Guénon should say that this distinction, after all, is rather trivial, then we should retort that he cannot consider the analytic-logical part of the philosophical enterprise to be of any great moment.

Samkhya metaphysics attempts to be radically dualistic but fails. It fails because of the strong naturalistic strain to explain events in a physicalistic rather than a mentalistic fashion. The evolution of *prakriti,* after the initial push of spirit, is explained in a manner not very different from that of Lucretius. The contradictions in the system are evidence of the reluctance of Samkhya speculators to use spiritualistic explanation when naturalistic explanation can serve equally well.

That Samkhya was unable to divest itself of the whole doctrine of *purusha* when the natural world already contained a principle of motion in *rajas* (energy) attests to its inability to completely throw off Upanishadic speculation. *Purusha* is the specific link that unites Samkhya with the other *astika* schools. Purushanic doctrine is incompatible with naturalism. Even if Samkhya has no deity, a nonnaturalistic element, *purusha* performs the function of Aristotle's Unmoved Mover and also the function of the migrating soul not subject to natural law.

The Samkhya doctrine of causality, that "the effect pre-exists in the cause," is compatible with naturalism. Cause and effect are different states of the same thing, the effect being rendered from the cause by means of some efficient agency. The state-

ment does not mean that the effect already exists in the cause actually, but only that it does so potentially. The effect "comes from" the cause when acted upon under certain specifiable conditions. This essentially Aristotelian notion is that the effect is determined in advance by the *nature* of the cause, a class-concept notion rather than a relational one.[159]

Samkhya cosmology, in contrast to that of Jainism and Buddhism, is richer and more intricate, and in the early texts much more space is devoted to it than to ethics. This testifies to greater concern with the processes of nature, no matter whether one approves the results of Samkhya speculation or not. This marked interest in cosmology we hold to be associated with naturalism rather than with nonnaturalism, particularly since *prakriti* is uncreated and self-evolving.

The ultimate goal of Samkhya ethics is liberation or release from the bondage of *prakriti*. The discussion of liberation is rather fragmentary in early Samkhya but becomes proportionately greater in the later commentators. Although less emphasis is placed on the evil designs of nature than in Jainism and Buddhism, Samkhya ethics is nonnaturalistic. Samkhya has no monastic order associated with it to make separation of the physical from the moral life easier for the seeker of salvation. The attitude of Samkhya philosophers to *prakriti* as opposed to the Jaina and Buddhist attitudes brings us into a realm of nuances, but in reading the texts we are aware of more than a subtle difference. This difference is one of the quality of emotion attached to the physical world. For the Buddhist philosopher, the physical world is an agony; for the Jain, cruel; but for the Samkhya, worthy of avoidance because every pleasure is accompanied by some retributive pain.

What all the philosophers of Samkhya, Buddhism, and Jainism share is the belief that if something fails to lead to total bliss it is not worthy of attainment. Buddhism, Jainism, and Samkhya all believe in pursuing unmixed goods. To believe the universe to be partly good and partly evil is nearly always too much of a compromise for all of them. Only the Carvakas, of the philosophers considered in this study, are willing to

159. See Kurt Lewin, "Aristotelian and Galilean Modes of Thought," *Dynamic Theory of Personality*, trans. D. K. Adams and K. E. Zener (New York: McGraw-Hill Book Co., 1935), p. 10.

accept the world without one plea and attempt to extract as much pleasure and happiness from it as they can.

Although the philosophers of these uncompromising systems found only evil in the world, the literature and art of their lay followers suggest that despite the splenetic and liverish moments of some philosophers a great deal of beauty, pleasure, and happiness could be seen by the naïve and unjaundiced eyes of the laymen. The Buddhist wall paintings at Sigirya and Ajanta, the Buddhist sculpture at Barhut and Mavalipuram, and architecture of Western India attest to the delight of laymen in the pleasures of physical existence.

Nothing could be more naturalistic than the "Pair of Lovers" in Cave I at Ajanta, or the male monkey catching fleas on the female at Mavalipuram in South India, both of which are fine examples of early art. Instances of stark artistic naturalism could be multiplied, but we shall rest content to mention one more, a bas-relief, the so-called Relief of the Kiss at Kailasa, which ranks high in natural eroticism. It perhaps falls a trifle short of the most erotic sculpture in the world to be found in such famous temples as Madura, Halebid, the Hoyshala shrines in Mysore, and those at Khandariya of Khajuraho in Vindhya Pradesh. Here the eighty-one positions of coitus are carved into stone depicting suggestions made in the *Kamasutra.*

At best, much of early Indian art is "half secular, half-religious."[160] When it is religious, it is frequently naturalistic, which is to say, although it sounds odd, that it is not strictly in harmony with the avowed ethical aims of Buddhism, Jainism, and Samkhya.[161]

160. René Grousset, *The Civilization of India,* trans. C. A. Phillips (New York: Tudor Publishing Co., 1939), p. 98.

161. Surendranath Dasgupta, perhaps the greatest philosophy historian of all times, said: "There have been principally three orders of materialists in India the Sāṅkhya, the Vaiśesika and the Buddhists, but we find that every system of thought in later days which conceded any reality to the external world borrowed from the Sāṅkhya their *prakṛti, buddhi, ahaṅkāra,* the *tanmātras,* and *aṇus* with such modifications as suited them: (Dasgupta, *Philosophical Essays* [Calcutta: Calcutta University Press, 1941], p. 156). Chattopadhyaya, in *Lokayata . . .* (New Delhi: People's Publishing House Private Limited, 1959), substantiates our view, unlike Ruben's, that Samkhya is naturalistic. See pp. 360, 376, 397.

8. VAISESIKA NATURALISM

The Beginning of Vaisesika

What the origin of the Vaisesika school was is a matter of considerable speculation, although certain limits can be set to the many opinions expressed. Radhakrishnan holds that the impulse of this school "is derived from its hostility to Buddhistic phenomenalism,"[1] but in saying this he may be thinking more of the later than the earlier development of this school. We are trying, in this chapter, to depict the early school. M. N. Roy holds that the Buddhist and Jaina schools have their origin in Vaisesika or Samkhya conjointly, with special debt to Kanada, supposed founder of Vaisesika, and Kapila.[2] But this cannot be maintained on the basis of the Vaisesika literature, which is no earlier than Kanada, who is later than the earliest Buddhist and Jaina texts, later than 80 B.C. according to Bouquet.[3] Another writer, Gañgānātha Jhā, has attempted to show the similarity between Mimamsa and Vaisesika, but this is of no help in establishing the antiquity of Vaisesika,[4] although Dasgupta has attempted to show that

1. S. Radhakrishnan, *Indian Philosophy* (2 vols.; London: George Allen and Unwin, 1948), II, 177.

2. M. N. Roy, *Materialism: An Outline of the History of Scientific Thought* (Calcutta: Indian Renaissance Publishers, 1951), p. 83.

3. See "Beginning of Buddhism" in chapter 6 above.

4. Ganganatha Jha (ed.), *The Padārthadharmasengraha of Praçastapāda with the Nyāyakandalī of Çrīdhara*, trans. Mahamahopadhyaya (Benares: F. J. Lazarus and Co., 1916), chap. i.

Vaisesika is a school of Mimamsa.[5] It is also held that Vaisesika grew out of Jainism or out of Lokayata (Carvaka), the view of Jacobi.[6] According to Jacobi, the earliest reference to Vaisesika is found in the *Caraka-saṃhitā.*[7]

The so-called materialism of Vaisesika may be traced to the heterodox thinkers appearing during the time of Carvaka, especially Ajita Kesambali, according to Ui.[8] Ui further claims that the origin of Vaisesika cannot be traced to the ancient Upanishads, although the Jains may have influenced them in their atomistic outlook.[9] It is also believed that the Buddhism of the Pali Canon cannot have influenced Vaisesika since it was non-atomistic at that time.[10] Vaisesika may have originated at the time of Mahavira and the Buddha, that is, in the sixth century B.C.,[11] and it may have been systematized before A.D. 100 but certainly not before 300 B.C. The date, A.D. 100, as the date for the systematization, has the virtue of not being contradicted by any important chronological evidence nor does it appear to contravene any important opinion with or without evidence.

The two leading Vaisesika philosophers of the period we are considering were the probably legendary Kanada[12] and Pra-

5. Surendranath Dasgupta, *A History of Indian Philosophy* (5 vols.; Cambridge, Eng.: Cambridge University Press, 1922-55), I, 285.

6. Helmut von Glasenapp, *Die Philosophie der Inder* (Stuttgart: Alfred Kröner, 1949), p. 234. A. B. Keith *(Indian Logic and Atomism: An Exposition of the Nyāya and Vaiçeṣika Systems* [Oxford: Clarendon Press, 1921]) agrees with Dasgupta that Vaisesika developed out of the Mimamsa.

7. See *Caraka-samhita* i. 1, 43 f; i. 1, 63 f, in H. Ui, *The Vaiśesika Philosophy According to the Daśapadārtha-Sāstra,* Chinese Text with Introduction, Translation and Notes, ed. F. W. Thomas (London: Royal Asiatic Society, 1917), p. 34.

8. Ui, *The Vaisesika Philosophy,* p. 18.

9. *Ibid.*, p. 25. According to A. L. Basham *(History and Doctrines of the Ājīvikas: A Vanished Indian Religion* [London: Luzac and Co., 1951], p. 177), the Trairāśikas, a schism of the Jains founded in A.D. 18 by the monk Rohagupta, held views resembling the Vaisesikas on the fundamental categories.

10. Ui, *The Vaisesika Philosophy,* p. 25. According to Basham *(Ajivikas,* pp. 268-69), the Sarvastivadins (Buddhists) held to an atomic theory that was nearly as simple or primitive as that of the Ajivikas whereas that of the Vaisesikas was considerably more differentiated. This may be adduced as further evidence of the lateness of Vaisesika philosophy.

11. Ui *(The Vaisesika Philosophy,* p. 26) holds that evidence for this is that the terms *hetu* and *pramana* have the same meaning in both systems. This may be contributive evidence.

12. Also known as Kanabhaksa, Kanabhuja, Kaṇanda, and perhaps Kalanda.

śastapāda, who lived, respectively, perhaps before A.D. 300 and between A.D. 400 and 500. Attempts to fix earlier dates are at present unsuccessful, although there is hope in some quarters that Vaisesika may be proved to have existed as a philosophy before the Christian era.

We wish to divide the historical development of Vaisesika into three major periods: (1) Vaisesika during the "Age of Kanada," estimated to be from A.D. 50 to 300; (2) that during the "Age of Prasastapada," from 300 to 900; (3) and that from the "Age of Prasastapada" to the present, called the Syncretic school, from 900 to perhaps 1900.[13] Here we are concerned only with the first period and part of the second up to 500.

The earliest work of the school is attributed to Kanada, whose name means "atom-of-grain-eater." This work is sometimes called the Aphorisms of Kanada, but more usually the *Vaisesika Sutras,* and is presumably older than the *Nyaya Sutras.* Following this in time is the *Bhasya* of Prasastapada on the *Vaisesika Sutras.* According to Keith, the latter is the most important single work of the entire school throughout its long history, and probably written no later than the fifth century A.D.[14] The chronological table for the Vaisesika and its philosophers up to early Mogul times shows the following distribution.

Early Vaisesika

Vaisesika mentioned in *Milindapanha* (around the beginning of Christian Era)
Vaisesika mentioned in *Mahabharata* (not before 200 B.C.)
Vaisesika Sutra attributed to Kanada (not before 200 B.C.)
Prasastapada (A.D. 400-500)

Movement Toward Syncretism

Vatsyayana the Naiyayika (A.D. 400-500)
Uddyotakara the Vaisesika (600-700)

Garbe believed that Kanada could have flourished between A. D. 200 and 400.

13. Keith divides the schools into (a) independent development, (b) mutual awareness of Vaisesika and Nyaya, (c) early syncretism, (d) the Nuddea (Navadvīpa School of Lower Bengal), and (e) the later syncretic *(Indian Logic and Atomism,* pp. 31-33).

14. *Ibid.*, p. 25.

Movement Toward Syncretism (Cont.)

Caudra, commentator on Prasastapada *(ca.* 600)
Vacaspati Mishra the Naiyayika *(ca.* 841)
Bhasarvajna the Naiyayika *(ca.* 900)
Jayanta the Naiyayika *(ca.* 950)

Syncretic School of Nyaya-Vaisesika

Udayana the Theistic Vaisesika *(ca.* A.D. 984)
Sridhara the Nyaya-Vaisesika *(ca.* 991)
Civaditya the Nyaya-Vaisesika (before 1150)
Gangesa the Nyaya-Vaisesika (thirteenth century)[15]
Vardhamanopadhyaya the Nyaya-Vaisesika (thirteenth century)
Kecava-mishra the Nyaya-Vaisesika (not later than 1300).

In the Mirzapore edition of the so-called Aphorisms of Kanada, the prefatory remarks indicate that the function of these sayings was simply to act as a brief mnemonic device for a doctrine that would already have been largely known (memorized).[16] We must hold, in all honesty, that the available writings of early Vaisesika are rather thin, although rich by comparison with what we have remaining of Udallaka, Brhaspati, and Carvaka. A sketch, nevertheless, of this justly famous school may be of some value if we remember that, as in the case of Carvaka, we are making a viewpoint appear more comprehensive and better defined than it appears in the source literature. Our account makes special provision for not lumping together early Vaisesika, Nyaya, and the Syncretic school, although it must be noted that certain passages to be found in the *Nyaya Sutra* have their origin in the earlier *Vaisesika Sutra.*[17]

15. Although we shall not treat of this school, D. H. H. Ingalls in *Materials for the Study of Navya-Nyāya Logic* (Harvard Oriental Series, Vol. XL [Cambridge, Mass.: Harvard University Press, 1951]) has given an excellent account, particularly of Gangesa.

16. Kanada, *The Aphorisms of the Vaiśeshika Philosophy of Kanāda with Illustrative Extracts from the Commentary by Śankara Miśra* (Mirzapore: Orphan School Press, 1851).

17. See G. Tucci (trans.), *Pre-Dinnāga Buddhist Texts on Logic from Chinese Sources* (Gaekwad's Oriental Series, ed. B. Bhattacharyya, No. XLIX [Baroda: Oriental Institute, 1929]), p. xxviii.

Theory of Knowledge

There are many brief discussions of the meaning of *vaiśesika* itself. One text has it that *viśeṣa-lakṣaṇā* means "particular characteristics."[18] Keith held that *viçeṣya* is an object of knowledge in a judgment, this same object of knowledge possessing in reality certain attributes called *viçeṣaṇa.* The attribute represented in the judgment is a characteristic *(prakāra)* which must correspond to the attribute.[19] Knowledge, then, is directed to something-not-the-knower, which knower is apprehended immediately in feeling or cognizing and is inferred as the substratum of the mental acts directed outside the knowing. In short, what one knows is not one's mental states only, but objects and their characteristics in the external world. In this "naïve" realistic approach to knowledge, true knowledge is called *pramā;* false knowledge is called *apramā.*[20] Knowledge is a state of correspondence between certain characteristics in judgment and the external object.

Perhaps we can better understand what early Vaisesika held to be knowledge if we examine briefly the "fallacies of thesis" as described by Prasastapada. There are five major fallacies of thesis, that is to say, fallacies of attribution in making errors in what is said about a given object. These are as follows:

Fallacies

Fallacy	*Example*
1. Refutation by perception	"Fire is cooled" is false
2. Refutation by inference	"Physical space is solid" is false
3. Refutation by scripture	"A Brahman ought to drink *surā*"[21] is false
4. Refutation by one's own school	"The effect is existent before its production" is false
5. Refutation by one's own words	"A word does not give us information about anything"[22] is false

18. *Ibid.*, p. 4.
19. Keith, *Indian Logic and Atomism,* pp. 44-45.
20. *Ibid.*, p. 45.
21. A forbidden intoxicant.
22. Dinnaga's example for refutation by one's own words is: "My mother is

We can see that (1) is based on correspondence; (2) indirectly on correspondence; (3) indirectly on correspondence; (4) on scripture (but, according to Dinnaga, on public opinion);[23] (5) on the principle of contradiction. It is quite clear, then, that the Vaisesika theory of knowledge is realistic as opposed to such Indian views as those of Prabhākara in which consciousness, not involving memory, alone gives true knowledge, or to the Mimamsikas, who hold that cognition is the production of a quality of cognizedness (jnatata) in the object which then becomes the object of perception.[24]

With regard to doubt, error, indefinite cognition *(anadhyavasāya)*, and dream *(svapna)*, these are all excluded from valid knowledge. It is not clear whether early Vaisesika philosophers believed that memory was valid or not.[25] In some cases, the Naiyayikas have held that there are special cases of self-evident knowledge *(svataḥ-prāmāṇya)*, but the source of this is later than the Vaisesika with which we are here dealing, making it difficult for us to know whether this was held as early as Prasastapada.[26] This special kind of cognition is said to be reserved to "advanced sages, as also the vision of the Perfected Ones, (results) from *dharma* or merits."[27] It is said in the *Vaisesika Sutra* also that "False knowledge (arises) from imperfection of the senses and . . . impression."[28] This, then, is the substance of Vaisesika theory of knowledge, about which the *Vaisesika Sutra* says little and about which Prasastapada says little more.

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barren " (Barend Faddegon, *The Vaiçeṣika-System Described with the Help of the Oldest Texts*[Verhandelingen der Koninklijke Akademie van Wetenschappen te Amsterdam, Afdeeling Letterkunde, Nieuwe Reeks, Deel XVIII, No. 2 (Amsterdam: Johannes Müller, 1918)], p. 540). The recognition of semantical paradox is fifteen hundred years old in India.

23. Faddegon, *The Vaiçeṣika System*, p. 541.

24. Keith, *Indian Logic and Atomism*, p. 46.

25. S. Radhakrishnan, A. R. Wadia, D. M. Datta, and H. Kabit (eds.), *History of Philosophy Eastern and Western* (2 vols.; London: George Allen and Unwin, 1952), I, 220.

26. *Ibid.*

27. *Vaiśesika Sūtra* ix. 2, 13, in Nandalal Sinha (trans.), *The Vaiśesika Sūtras of Kaṇāda with the Commentary of Śaṅkara Miśra and Extracts from the Gloss of Jayanārāyaṇa, together with Notes from the Commentary of Chandrakānta* (Sacred Books of the Hindus, Vol. VI, Nos. 16-18, [Allahabad: Pāṇini Office, 1911]).

28. *Vaisesika Sutra* ix. 2, 10.

If the order of the first aphorisms of Kanada follows the original sequence, and if this sequence was meant to convey the idea that most important things would be treated first, then Vaisesika is trying to recommend a certain path of action to lead to prosperity (natural) or to salvation (perhaps not natural). The first verse reads; "Now, therefore, we shall explain Dharma."[29] Salvation comes from real knowledge, which we discover to be knowledge of the external world and our relationship to it. In Western thought rather striking resemblances can be found to sections of the *Vaisesika Sutra* in Spinoza's *Ethics*, if the latter is given a naturalistic interpretation.[30] A few examples from the *Vaisesika Sutra* are illustrative: "Substance is not annihilated either by effect or by cause";[31] again, "Substance is the one and the same cause of Substance, Attribute, and Action."[32]

It is curious to note that *dharma*, as used in the first verse (aphorism), has sometimes been translated as "God," although the consensus of opinion is that early Vaisesika was atheistic. The view that Vaisesika is primarily interested in salvation has been challenged by Faddegon, who says that "If we consider the discovering of the six–or originally three–categories as the birth of the Vaiçesika system, then it follows that this philosophy owed its origin to a purely theoretical attitude of mind and not to that craze for liberation which dominates nearly all forms of Indian thought."[33] We must be wary these days of such phrases as "purely theoretical attitude," which in more recent times has come in for some dramatic lickings as a phantom of idealistic thought.

Perhaps it is not unreasonable to assume that the early Vaisesika was concerned with how we know, what we know, and the elements of what we know as they are represented in objects. The exceedingly thin suggestions of ethics in the *system*, if we continue to call it such, without an ethics, implies,

29. *Ibid.*, i. 1, 1.

30. See G. L. Kline, *Spinoza in Soviet Philosophy* (New York: Humanistic Press, 1952). See especially reference to S. Kovner's account as early as 1862 (p. 5). Ludwig Feuerbach's assessment is the most important naturalistic one before Kovner's.

31. *Vaisesika Sutra* i. 1, 12.

32. *Ibid.*

33. Faddegon, *The Vaicesika-System*, p. 12.

so far as we are concerned, that its main purpose was not to deal with ethical or moral problems but to deal with what is actually portrayed in the writings: the content of knowledge, the objects of knowledge, and the knowing of those objects.

Metaphysics

The most important part of Vaisesika is its view of metaphysics which portrays a highly naturalistic set of elements known by means of a naïve realism. Doubtless the Vaisesika lack of knowledge of the idealistic forms of epistemological argument put forth by the Mahayanists and other mindists is responsible for the sparse material on theory of knowledge. One of the most controversial statements ever made concerning the sum and substance of idealistic speculation has been summarized as follows: "Proposition:—the finite is not infinite; problem:—how, then, can the finite know the infinite? Solution:—the finite must become the infinite!"[34] That the Indian naturalist is not faced with this problem until it is insisted upon by the idealists is quite clear. Furthermore, it would appear that Indian logic itself, probably largely written by idealists, could not act as a criterion of the meaningfulness of the self-contradictory question, could not be used as Aristotelian logic was, as a scalpel to eliminate statements which ought not be uttered by philosophers priding themselves (if they did) upon logical thought. The fairly extensive discussions of ontology, cosmology, the categories, however, make up for the sparseness of epistemology.

The Categories

Since we know the objects of sense, know that they are external to us, independent of us, and uncreated by deity, then the question may be asked: What are the objects of sense composed of? This question indicates the naturalistic spirit of the Vaisesika system.

The main features of Vaisesika metaphysics include the following propositions reconstructed from the Vaisesika material.

34. M. N. Roy, "Indian Philosophy and Radhakrishnan," *The Philosophy of Sarvepalli Radhakrishnan*, ed. Paul Arthur Schilpp (New York: Tudor Publishing Co., 1952), p. 552.

1. There is an external world, independent of minds.
2. This world existed eternally; it was never created.
3. Things must be made up of parts.
   a. These parts combine into wholes.
   b. There is a permanent substance of some kind which cannot be subdivided.
      i. There must be an end to divisibility because infinite regress is inconceivable *(anavasthanupatti)*.
   c. It may be the case that there exists something which is uncaused.

It is of interest to note that Kanada or Prasastapada felt no need to prove the existence of the external world, although later Vaisesika writers found it necessary to do so in order to combat the idealistic arguments denying such existence, particularly those of the idealizing Buddhists and the Vedantins.

It has been suggested by Mysore Hirayanna that this metaphysics be called "radical pluralism."[35] So long as we do not mistake this for a kind of pragmatism, which it certainly is not, there can be little objection to it. It is the view of Walter Ruben that the Vaisesika categories at the base of their pluralism arise from grammar and ritual,[36] a view which is taken from or substantiated by Faddegon.[37] Ruben also has compared the Vaisesika views with those of Aristotle concerning the categories of permanence and causation and finds them similar in the following ways: (1) the basic category of each is substance; (2) both attempt a new way of compromising between being and becoming in the sense that the idea (form) remains while the thing (matter) passes away; and (3) there is, for both Vaisesika and Aristotle, not only material cause but immaterial cause (formal and final cause in Aristotle; soul in Vaisesika). The Vaisesika notion of causation, as we shall soon see, is not really very close to Aristotle's; the notion of

35. Mysore Hiriyanna, *Popular Essays in Indian Philosophy* (Mysore: Kavyalaya Publishers, 1952), p. 103.

36. Walter Ruben, *Geschichte der Indischen Philosophie* (Berlin: Deutscher Verlag der Wissenschaften, 1954), p. 191.

37. Faddegon, *The Vaicesika-System*, pp. 166-70.

development, for example, is especially still mythopoeic. Since, however, Ruben makes little distinction between the different periods of Vaisesika, he is able to pick items from a 1,700-year period[38] to substantiate parallelisms. This leads us in this study to some serious difficulties, if we are to continue to make the distinctions relevant to early Vaisesika.

Beginning with the first book of the Vaisesika Sutras it is said that "The Supreme Good (results) from the knowledge, produced by a particular dharma, of the essence of the Predicables, Substance, Attribute, Action, Genus, Species and Combination. . . ."[39] These, then, are the major topics of interest, to which the early school devoted most of its attention. Dasgupta makes a point of remarking that the sutras under discussion divide occurrences into two main categories: those which occur according to experience *(dṛṣṭa)* and those which occur without our experience *adṛṣṭa),* the latter referring to Vedic works, ablutions, retirement, sacrifice, and the like.[40] We are not particularly concerned with these but rather with the categories in which nature and its manifestations are revealed.

The major categories are substance *(dravya),* quality *(guna),* class concept *(samanya),* particularity *(visesa),*[41] action (karma), inherence *(samavāya).*

Dravya (substance):	earth, air, fire, water, ether, time, space, mind, soul
Guna (quality):	color, taste, odor, touch, number, measure, separation, contact, disjoining, class membership
Karma (action):	upward motion, downward motion, contraction, expansion, horizontal motion

38. Ruben treats together the *Vaisesika Sutra* and the later theistic, syncretic movement. See *Geschichte,* pp. 192-93.

39. *Vaisesika Sutra* i. 1, 4.

40. Surendranath Dasgupta, *A History,* I, 283.

41. Broad's reading of McTaggart is interesting in this connection: "So the most appropriate way of expressing structure of the universe is to say that the universe is built out of, rather than differentiated into, a set of primary parts, each of which in turn is differentiated into, rather than built out of, sets of secondary parts" (C. D. Broad, *Examination of McTaggart's Philosophy* [2 vols.; Cambridge, Eng.: Cambridge University Press, 1933], I, 420).

The six common characteristics of the three most important major categories—*substance, quality,* and *action*—are existence, noneternality, substantive effect, causation, subgenerality, and subparticularity. Substance may produce other substances; qualities may produce other qualities; yet action need not produce other action (karma). Substance does not destroy its cause or effect; it may possess qualities and action—and is regarded as material cause *(samavayi)*. Karma may be destroyed by karma, is devoid of qualities, adheres only in substance, and is the independent cause of contact and disjoining and, furthermore, the principle of inertia in motion *(vega)*. Karma is not the cause of qualities, however, for substance may have quality without karma. Quality is the result of many contacts of atoms. Karma may be the cause of some things, but it is not the cause of substance or quality which are independent of it although related to it at times.

Difference *(visesa)* is the ultimate distinction among atoms and is completely independent of any observer. The ultimate genus is being *(bhāva)* which is separate from substance, quality, and karma. Nevertheless being exists in each of the other three major categories. The specific universals are thingness *(dravyatva)*, qualitiness *(guṇatva)*, and actionness *(karmatva)*.

Returning for the moment to the substances *(dravya)*, we may say that *earth* possesses color, taste, smell, and touch; *water* possesses color, taste, touch, liquidity, and smoothness; *fire* has color and touch; and *air* has touch. Ether, another substance, has none of these qualities; it is a substance in which sound inheres and like air has the property of being eternal.

Another consideration has been treated at length by Faddegon, who believed that the notions of relation, movement, and causality in Vaisesika were based on distinctions of grammar, a viewpoint which is considerably different from that attributed to the rise of such notions in Greece. Previous accounts have seldom paid much attention to this, but the importance of analysis and language today is such in the English-speaking world that perhaps a word about the linguistic hypothesis of Faddegon will not be without interest. Panini, the earliest important scholar of language in India, appeared sometime before the writing down of the Vaisesika philosophy. It is held by Fad-

degon that Panini actually wrote his famous *Grammar* and other works just at the time of the Vaisesika attempts to categorize the physical and mental world. There must be, Faddegon claims, some connection between the notions of physical causality and grammar as they appeared in early Vaisesika. There are, for example, reflective, constitutive, and modal relations. Reflective relations are those having to do with the part played by consciousness, such as relations of identity, otherness, likeness, inherence, quantitative relations, coordination, subordination, relations of logical necessity between facts, and so forth. The constitutive relations are those which constitute external independent things, the world exempt from subjective influences. These are spatial, temporal, and causal relations.[42] We shall omit the modal relationships here as being not pertinent. Despite Faddegon's ingenious account, which is barely suggested here, our own view is that the relationships of grammar are based upon observation of the physical world and not that accounts of the physical world are based on grammar. That grammar actually was used as a model for the Vaisesika categories is an interesting hypothesis which at the present time cannot be proved or disproved.[43]

The final substance, soul, is not perceived. It is known through inference since there must be a substance which embraces the knowledge produced by the senses in contact with objects having the requisite quality of being perceived (not ether, since that too is inferred). The soul which is inferred (presumably by itself) is able to infer the following: (1) the nonexistence of some things from the existence of others; (2) the existence of other things from the nonexistence of some of them; and (3) the existence of some things from the existence of other things. The soul may be inferred from such behavioral manifestations as inhalation, exhalation, twinkling of the eye, pleasure, pain, antipathy, and effort. Scripture may be invoked concerning the existence of the soul,[44] but this is quite unnecessary because of our ability to infer it. One should be warned that Vaisesika gives no special preference

42. Faddegon, *The Vaicesika-System*, pp. 177-80.

43. See the classification of verbs in *ibid.*, p. 110; also a list of grammatical statements bearing on causality, pp. 130-31.

44. *Vaisesika Sutra* iii. 2, 8.

to soul, but considers it on the same level as the other substances.[45]

The qualities of eternal things are eternal, and the quality of noneternal things is noneternal. Qualitative change is produced by atoms that are invisible. Nonexistence is recognized by the absence of quality or action. Existents may become nonexistent by being in the following conditions: (1) negated before production; (2) negated after destruction; and (3) negated by mutual action (mutual negation of each other in each other).[46]

Atomism

It is held by some that belief in the existence of an eternal substance in contrast to the human experience of transiency led the Greek atomists to divide qualities into primary and secondary. This is not quite the case in Vaisesika. The difference between the Vaisesika view and that of the Greeks is explained by Faddegon in terms of the insistence of the Greeks on the use of mathematics, whereas the Indians were too sacerdotally minded to require mathematics rather than philology. For Faddegon, presumably, religion requires words rather than numbers. We certainly are unaware of any thorough account of this, let alone compelling proof. Faddegon's view, nevertheless, is interesting, for he holds that the Greek considered primary qualities of the atoms to be mensurable whereas the secondary qualities were mental reactions to the primary qualities of external objects.

To say that the Greeks were less sacerdotal than the Indians in order to explain the division of primary and secondary qualities as well as the advancement of Greek science (through the combination of observation and mathematical methods) raises another question. Why is there any necessary or even historical gulf between mathematics and religion? We do not believe that the evidence for this view is much more than the

45. A view held by Jacobi and more recently by Ingalls, who insist upon the pluralistic rather than dualistic interpretation (D. H. H. Ingalls, letter to author, September 24, 1958).

46. Surendranath Dasgupta, *A History,* I, 293. This interpretation is so strikingly like the Hegelian law of negation that one wonders how dialectical materialists, e.g., Thalheimer, have missed it.

statement of the hypothesis itself. If we turn to China during the Chou Dynasty when an attempt was made to reduce complex human relations to geometrical formulas,[47] we find an attempt to use mathematics for the service of religion. It is difficult to believe that there is a causal relationship between the sacerdotal outlook (if there is *one* such) and the use of mathematics.

According to J. Chatterji, the *paramanus* are not atoms in the Vaisesika system; they should not be translated into English as "atoms." The reason he adduces for this rare viewpoint is that the *paramanus* have no magnitude, whereas "Western atoms" do.[48] D. H. H. Ingalls, on the other hand, has pointed out that the *paramanus* do have the qualities of visible substances. He says, "Necessarily, for otherwise there would be no *asamavāyi* cause of the qualities in the visible substances. The blue color of the atom is the *asamavayi* cause of the blue color of the diad and this of the blue color of the visible triad."[49] We shall follow the lead of Ingalls here as being exegetically sound.[50]

The arguments used to prove that indivisible atoms existed were as follows: (1) if they did not exist as the smallest things, this would lead to an infinite regress; and (2) if they did not exist, every material product would consist of an equally endless number of constituents which would exclude difference of dimension. The largest mountain might be equal to a sesame seed.[51]

There are four kinds of atomic dimension or *paramāṇa* or attribute that cause differences in measurement: small (anu), large *(mahat),* long *dīrgha),* and short *(hrasva).*[52]

The atoms as *earthy* have color, taste, smell, touch; as

47. Joseph Needham, *Science and Civilization in China,* (Cambridge, Eng.: Cambridge University Press, 1956), II, 210.

48. Jagadisha Chandra Chatterji, *The Hindu Realism* (Allahabad: The Indian Press, 1912), p. 19.

49. D. H. H. Ingalls, letter to author, December 12, 1956.

50. Keith *(Indian Logic and Atomism,* p. 218) has it that: "Nor are atoms absolutely without magnitude; the minute is opposed to magnitude, but in the same genus. . . ."

51. Titi Cari Lucreti *De rerum natura libri sex,* ed. and trans. Cyril Bailey (Oxford: Clarendon Press, 1947), i. 184-91.

52. A fifth was later added, having the smallest possible dimension, *parimaṇḍala* or *prakṛṣṭa-aṇutva.*

watery they possess color, taste, touch; as *fiery* they possess color and touch; and as *airy* they have touch. Besides the qualities mentioned, each of the four types of atoms has the property of eternality. These atoms were considered to be the ultimate physical cause, a notion attacked by Vedantins, who claimed that no cause as seen and no cause as unseen is possible (especially at dissolution [of objects]), and, furthermore, that the relation of inherence between a material cause and its product cannot be validly established unless another relation is introduced. This argument would have pushed the inquiry into a third-man[53] type of wrangle. To this objection, the Vaisesikas replied that no further relation is required for the atoms since they are eternal.[54]

If we now list the gamut of properties possessed by the atoms, we may include the following:

1. eternality and indivisibility;[55]
2. ultimate material cause;
3. inability to produce by themselves (otherwise their eternality would involve continuous process of production);
4. each possesses specific attributes (such as smell, touch, taste, and color);
5. they cannot be perceived by means of the unaided sense organs;[56]
6. all their inherent attributes are eternal except for earthly attributes;
7. atoms are not only individually imperceptible, but also collectively so;[57]
8. they have an inhering relation which is responsible for change and motion;

53. An argument to be found in Plato's "Parmenides," in *The Dialogues of Plato,* trans. Benjamin Jowett (2 vols.; New York: Random House, 1937), Vol. I, sec. 132, and also attributed by Aristotle to some Sophists, including Polyxenus. Also see Sir David Ross, *Plato's Theory of Ideas* (Oxford: Clarendon Press, 1951), p. 87.

54. See Umesha Mishra, *Conception of Matter According to Nyāya-Vaiçeṣika* (Allahabad: M. N. Pandeyattre Allahabad Press, 1936), p. 97.

55. Kamalākara Bhaṭṭa, an Indian mathematician, later attempted to disprove the partless nature of the atom by demonstrating the incommensurability of the hypotenuse of a right-angled triangle. See *ibid.*, p. 71.

56. In the later *Vaiśeṣika Upaskāra* (of Śaṅkara-miśra) it is held that yogins might perceive atoms through their sense organs.

57. This is contrary, of course, to the experience of seeing bodies made up of atoms (Keith, *Indian Logic and Atomism*, pp. 218-19).

9. there is a quiddity which differentiates any given atom from all others (the principle of twoness in Aristotle).

When destruction occurs, according to Vaisesika, the union of primary and binary atoms is broken and the triads are destroyed.[58]

Soul is an atomic aggregate, a disposition to receive impressions of external objects and to react to them (consciousness). The constituents of soul or consciousness are the four atoms (earth, air, fire, and water) in some kind of combination. The possession by the atoms of the inherent property of coalescence and combination was of enormous significance to Indian atomism for it solved the problem of accounting for change. We are reminded that Democritus' view at this point had to be corrected by the Epicureans who introduced the property of "swerve" to account for atomic combination.

The products of the atoms as they combine fall into three classes: body, sense organ, and object. As we remarked above, the atoms themselves could not be objects of unaided sense perception: they were only inferable as gravity is inferable. Gravity is considered the noninherent cause of the first movement of a falling body. Possessed by earth and water, gravity has given birth to velocity. Fluidity, in turn, gives rise to velocity in the same manner as gravity.[59] But we shall not pursue the ramifications of doctrines which appear late in the development of the Syncretic school.[60]

Vaisesika and Empedocles

So far as parallels between early Greek thought and Vaisesika are concerned, beyond those hinted at previously, we believe that the closest parallel is between Empedocles and Vaisesika. Empedocles, who required the categories of not only the four elements, but two more to give motive power to these, suggested that Love and Strife be recognized as the double agency.

58. In a more recent view, in answer to Vedantin objections, Vaisesika held that destruction was caused by a complete reversal of universal action, from the final effect backward. This is particularly interesting to us because it indicates a resolution to explain events naturalistically even if the system by this time had brought deity into the picture (*ibid.*, p. 216).

59. *Ibid.*, p. 221.

60. *Ibid.*, pp. 222f.

According to Empedocles: "Hear, first, the four roots of things: bright Zeus, and life-bearing Hera, and Aidoneus, and Nestis who causes a mortal spring of moisture to flow with her tears."[61] These four allegorical personifications refer to fire, earth, air, and water. Furthermore, says Empedocles: "And I shall tell you another thing: there is no creation of substance in any one of mortal existences, nor any end in execrable death, but only mixing and exchange of what has been mixed; and the name 'substance' [Phusis, 'nature'] is applied to them by mankind."[62] He goes on then to explain that things (made up of the elements) are "sometimes uniting under the influence of Love into one ordered Whole, at other times again each moving apart through the hostile force of Hate. . . . ."[63] The *causa movens*, Love and Hate, and the four roots, make six categories or principles, roughly parallel to the six early categories of Vaisesika. What is next most striking about the comparison is the decision of Empedocles to hold to pluralism as opposed to the monistic view of the Milesians.[64]

View of Deity

Like Theravada Buddhism, Jainism, and Samkhya, early Vaisesika is atheistic, although attempts have been made by translators and commentators to prove otherwise. It is even quite likely that not only early Vaisesika but also the first period of interpenetration of it by Nyaya is still without strong theistic or deistic allegiance. The soul may be an eternal and all-pervading substance, but it lacks the qualities of deity, such as directing the universe or being involved in the teleological or entelechial activities of man or other living beings. This feature is only to be found later, during the period of Syncretism, when the system of Nyaya-Vaisesika clearly ac-

61. Empedocles, Fragment 6, in Hermann Diels, *Die Fragmente der Vorsokratiker*, ed. Walther Kranz (7th ed.; Berlin: Wiedmannsche Verlagsbuchhandlung, 1954), I, 311.

62. Empedocles, Fragment 8, *ibid.*, p. 312. The bracketed words in the passage are added by Kathleen Freeman (*Ancilla to the Pre-Socratic Philosophers* [Oxford: Basil Blackwell, 1956], p. 52), since Diels has translated *physis* as *Stoffe*.

63. Empedocles, Fragment 17, Diels, *Fragmente*, I, 316.

64. See Werner Jaeger, *The Theology of the Early Greek Philosophers* (Oxford: Clarendon Press, 1948), p. 137.

cepts a deity as demiurge, who uses the eternal elements to construct a harmonious universe. At this later time, deity is proved according to the philosophers, by scripture, by the principle of causality, and by the moral law.[65] God maintains a continuous relationship with the universe as maintainer and destroyer.

It is the view of Radhakrishnan that the critics of Vaisesika, such as the Madhyamika Buddhists and the Vedantins, insisted that there be some principle to hold together the atoms and souls. The marvelous unity of the world could not have been produced by atoms, according to such critics. But early Vaisesika is not bothered by this, presumably, and it is held even by Śaṃkara that neither Kanada nor Prasastapada required a God to deal with the eternal and uncreated atoms and souls, using instead the principle of *adrsta.*[66]

Ethics

Vaisesika ethical theory leaves much to be desired in the sense that the material is sparse and cryptic. There appears to be some toying with hedonistic ethics or at least with explaining moral action in terms of hedonism. "From Pleasure (arises), Desire"[67] is the view expressed in the sixth book of the *Vaisesika Sutra,* although what we can draw from this is not too clear, following the succeeding verses: "Desire and Aversion arise from adristam also";[68] and from "Desire and Aversion arise also from racial distinctions";[69] and from "Application to dharma and adharma has for its antecedents Desire and Aversion."[70] *Dharma* for Vaisesika is made up of two components: the content of morality and the power which is within the human being; *dharma* is not in the action performed. *Dharma* may be destroyed whenever the individual achieves true knowledge, which consists in the morality of a selfless insight into the true nature of things. Desire and aversion lead

65. Radhakrishnan, *Indian Philosophy,* II, 226.
66. *Ibid.*
67. *Vaisesika Sutra* vi. 2, 10.
68. *Ibid.* vi. 2, 11.
69. *Ibid.* vi. 2, 13.
70. *Ibid.* vi. 2, 14.

us to action; the whole of human existence is tied to their propulsive power seated in the body, which is the seat of enjoyment.

In our purposive life we are motivated by "the performance of acts of observed utility . . . for the production of adristam. . . ."[71] The halfhearted attempt to give some account of ultimate release from desire and pleasure is scarcely a stirring call in the *Vaisesika Sutras*. As a matter of fact, the impression left on the reader is that the Vaisesika categorizers are primarily interested in questions of ontology and cosmology with little attention expressed as to whether we ought to do more than describe states of affairs. In this sense, it seems to us that the Vaisesikas, of all the so-called *astikas* dealt with in this study, are the least concerned with scripture even in its ethical emphases. It may be said without exaggeration that on the basis of the texts, that is, on the record as we have it, early Vaisesika is interested in the categories, in particularity, in ontology, in cosmology, in the operations of nature. To these are attached a few cryptic remarks from the scriptures, which remind us of a physics book that tacks on the beginning and the end a statement concerning the wonders of Holy Writ. We can scarcely disagree, then, with the earlier mentioned estimation of Faddegon that implies the primarily naturalistic concerns of this school. The sharp negative criticism of Radhakrishnan also leads us to grant this interpretation. He says:

> The defect of the Vaiśeṣika is that it does not piece together its results into a single coherently articulated structure. It is not a philosophy in the sense implied by the famous saying of the *Republic* that he who sees things together is the true dialectician or the philosopher. A catalogue of items is not a systematic philosophy. The many-sided context of human life is ignored by the Vaiśeṣika, and its physical philosophy and moral and religious values are not worked into a unified interpretation.[72]

This is succinctly put. But our own assessment would be somewhat different. The very excellence of Vaisesika as a natural-

71. *Ibid.* x. 2, 8.
72. Radhakrishnan, *Indian Philosophy,* II, 246-47.

istic system lies in its treating what can be known in nature and simply adding on a few pious remarks,[73] which do not convince us any more than they do Radhakrishnan.

Summary

In summary we may say that Vaisesika is naturalistic in believing in a single universe of substances (atoms); that these substances are eternal, uncreated, and operate without the intervention of deity. We know these substances with our sense organs or by inference based on sense information. The world is just about the way it appears to common sense; it is not an illusion, nor does the sense world veil a more important, hidden world behind it. It is difficult to say what the ethics of Vaisesika is, but certainly it may be surmised that it is not flavored with otherworldliness.

73. Textual analysis from a nonidealistic point of view may still reveal that these utterances are later additions.

9. CONCLUSION

Our examination of the early schools of Indian philosophy has led us to conclude (1) that the views of Uddalaka, Carvaka, and early Vaisesika are clearly naturalistic; and (2) that the views of the Ajivikas, Jains, Samkhya, and Theravada and Vaibhasika Buddhism are certainly strong in some naturalistic elements.

Carvaka is naturalistic on all three counts of theory of knowledge, metaphysics, and ethics; to a lesser degree this is also true of Uddalaka's philosophy, although it can scarcely be called a school or system. Vaisesika is generally naturalistic in its theory of knowledge and metaphysics, while its ethics is so shadowy that it scarcely can be classified. The metaphysics of Jainism and Theravada and Vaibhasika Buddhism is frequently strongly naturalistic, although not in all. Many features of Samkhya metaphysics are naturalistic also.

Theravada and Vaibhasika Buddhism and Jainism find no teleological principle in the world; they find no deity. They are, consequently, humanistic systems in which the individual man may achieve the highest ethical goals without nonhuman aid.

The outstanding naturalistic elements in Jainism include the following beliefs: (1) there is no first cause or deity; (2) the world of *loka* consists of matter (atomic particles); (3) karma, in so far as it is known, is made up of material particles also—a clear concession to naturalism; (4) the soul has physical properties that allow it to expand and contract to fit

the material body in which it finds itself; and (5) the human individual has the natural power to achieve his aim without supernatural aid or revelation.

We have demonstrated strong and important naturalistic elements and attitudes in the Indian philosophies up to the sixth century. Yet with such an auspicious development, with a longer continuous tradition than Greece had, as misfortune struck India, first, during the period of continuous conflict among the principalities (500-1000), then, during the Muslim theological supremacy (1000-1650), and finally, during the colonial age of European trade rivalry (1650-1947), naturalism in India was nearly totally replaced by various forms of idealism which tried to make pleasant an imaginary life when the natural one was frequently intolerable. As naturalism grew increasingly stronger in Europe (and Japan), it grew markedly more feeble in India (and China), until in the twentieth century, particularly since India gained independence (1947), it again began to raise its ancient and honorable standard in the new India. The history of the naturalistic revival in India is still to be written although its green shoots are visible everywhere.

GLOSSARY

Abbreviations:
- A Ajivikas
- B Buddhists
- J Jains
- S Samkhya
- V Vaisesika

abhijñeya–perceiving (B).
adharma–principle of rest, as opposed to motion.
adho loka–lowest part of the higher realm (J).
adṛṣṭa–without experience (V).
agnihotṛ, agnihotra–a sacrifice to the fire with milk, daily, morning and evening.
ahaṃkāra, ahaṅkāra–the empirical ego (S).
āhāraka–the temporary body that acts as a catalyst to remove doubt from the mind of a saint (J).
ajīva karma–unconscious karmic particles (J).
ākāra–the form of a thing (S).
ākāśa–an atom possessing penetrability (S); ether.
akrīyavāda–doctrine of nonaction or fruitlessness of works (A).
akrīyavādin–believer in nonaction or fruitlessness of works (A).
aloka–the realm beyond *loka,* containing only ether and known only by the omniscient (J).
alokākāśa–the world of *aloka* (J).
amūlam mūlam–the rootless root (S), perhaps like Aristotle's uncaused cause.
anadhyavasāya–indefinite cognition, sometimes error (V).
anāgata–the past (B).
anindriyānibandhana–nonsensuous perception, from the mind (J).
aṇu–individual, discrete atom particle; small atom (V).

aṇupapatti– indemonstrability of the universal, perhaps a seventh-century term (C).
ānvīkṣiki–science of logic.
ap–an atom possessing viscous attraction (S).
apramā–false knowledge (V).
apta–a verse, from sacred scripture.
āptavacana–authoritative statement or true revelation (S).
arhat–a state beyond speech, and sublime in knowledge at the summit of the universe (J).
arūpa–without form.
arūpajhāna–the four states of elimination for the preparation of the intellect to receive the truth (B).
asaṃbhavāt–indemonstrability or impossibility, a seventh-century term (C).
asamavāyi–cause of a quality (V).
āśraddha–faithless.
āśrama–the successive four stages of life from student to hermit.
asrava–inflow of karmic particles (J).
āsti–infallible.
atiśaya–peculiar mental power acquired by yogic meditation (J); equipped with thirty-four kinds of supernatural power (S).
atita–the past (B).
ātman–soul, self; Soul, Self.
avacara–region of the world system.
āvyakta–the unevolved evolver (S).
āyata–basic or prevalent.

bhanda–error, clinging (S).
bhūmi–an atom possessing cohesive attraction (S).
bhūtādi–homogeneous units of inertia that are uncreated and eternal (S).
bodhi–what the Buddha allegedly called his own Knowledge, from Sanskrit "to understand."
buddha–one who has reached nirvana (B).
buddhi–mind or intellect (S).
buddhivaibhava–exaltation of mental labor.

carv–to eat or chew (first syllable in Carvaka) (C).

darśana–point of view, aspect, "system" of philosophy.
deśa–place (S).
dharma–duty of the individual to society; merit achieved in various ways (mediation, etc.) (J).
dīrgha–a long-shaped atom (V).
dravya–substance (J, V).
dravyatva–universal of thingness (V).
dṛaṣṭṛ–inferred pure self that can never be known directly but only

through *buddhi*.
dṛṣṭa–experience (V).
duḥkha–suffering as a result of ignorance (S).

guṇa-quality (V).
guṇas–the infinitesimal substantive things (S).
guṇatva-universal of qualitiness (V).

hetumantaḥ–heretical pundits who disbelieved in immortality and other Vedic doctrines.
hrasva–a short-shaped atom (V).

indriyā-nibandhana–sensuous perception (J).
īśvara–supreme being, deity.

jarphari–magic formula of ancient Brahman priests.
jīva-soul, self.
jīva-karma–conscious karmic particles (J).
jñātatā–quality of cognizedness (V).
jñeya–to know (B).

kāla-time, principle of time, eternal time (J).
kāma-desire, pertaining to love.
karma–fruit of action (J); action, motion (V).
karmaṇaśarīra-karmic body in the individual that must be dispelled before omniscience may be obtained (J).
karmatva–universal of activity (V).
kevala-jñāna–perfect knowledge, omniscience.

linga–middle term.
lingam–phallus.
loha–iron.
loka-of this world, natural world (?), including men, creatures lower and higher than men (J).
lokākāśa-occupation of space points in *loka*.

madhya loka–middle part of the realm of *loka*.
mahābhūta (s)–material element; the four original qualities out of which atoms are made (B).
mahat–a large atom (V).
manas–central sensorium (S); mind, rationality.
mātikā–index (B).
māyā–illusion.
moksha–enlightenment, analogous to nirvana.
mukti-the goal of all men that is free from desire.
mūla-prakriti-prakṛti–the root principle (S).

na–not, non.
naiyāyika–follower of *nyaya*.
nāma–idea, conception.
nāstika–disbelievers in the infallibility of the Vedas.
navastuno vastu-siddhih–there cannot be the production of something out of nothing (S).
naya–partial knowledge obtained by having a relative point of view (J).
nibbāna-dhātu–nirvana element coordinate with ether (B).
niganṭha–*nirgrantha* (A, B).
nirgrantha–one on the path to perfection (J).
niriśvara–without deity.
nirvana–cessation of suffering and desire (B).
nityāsiddha–perfect *jīva* (J).
niyati–determinism (A).
niyativadins–disbelievers in determinism (A).
nyāya–debate, logic, school of logic.

paññа–intuition (B).
paradeśa–one point of space (J).
paramāṇu–an atom.
paramāṇus–physical objects made up of atoms.
paramārthika–immediate knowledge (J).
pāramārthika pratyakṣa–transcendent perception (J).
parimaṇḍala–atom of the smallest possible dimension (V).
pariṇāma–states of the soul; development, evolution.
parispanda–simple motion (J).
paṭigha–perception without resistance (J).
paṭigha-sañña–perception with resistance (J).
patipado–one who is on the path to buddhahood (B).
pradhāna–the chief principle (S).
prakṛṣṭa-aṇutva–atom of the smallest possible dimension (V).
prakṛti = *prakriti*–the material, objective principle; nature (?); aggregate of natural forces; ultimate ground (S).
pramā–true knowledge (V).
pratyakaṣa–true knowledge by direct perception.
pratyayās–cooperative action among elements.
pri–male; in the *Rigveda*, person.
pudgala–matter, whatever is perceived by the senses (J).
puṇya–merit as opposed to demerit through action of thought.
puri–gross body in which the soul lies (S).
puruṣa = *purusha*–the world soul, the individual soul (S).
purushārthatā–the teleological principle in the universe (S).
purvavat–reasoning from cause to effect (S).

rajas–energy that works to overcome resistance to movement and change (S).

rasa–mercury.
rūpa–form; object; the realm of matter (?).

sakala–perfect transcendent perception (J).
samādhi–concentration.
sāmānya–class concept (V); sharing of properties (J).
sāmānyatodṛṣta–reasoning by analogy (S).
samaya–relative time (J).
saṃjña–cognitive assimilation.
saṃsāra–cycle of transmigration.
saṃskāra–will, volition, desire.
saṃskṛta–the produced world.
saṃvaya–inherence (V).
saṃvyavahārika pratyakṣa–empirical perception (J).
saṅgati–chance (A).
saññā–sense perception (J).
sapta-bhaṅgī–the seven alternatives (J).
sariayasa–degradation of manual labor.
śastra–treatise on, science of.
satkāryavāda–the doctrine that cause and effect are the undeveloped and developed states of the same substance (S).
sattvas–essences or media of the reflection of intelligence (S).
sesavat–reasoning from an effect to a cause (S).
sete–he is lying (in the town): referring to the original idea of *purusha* (S).
siddha kṣetra–the half-moon-shaped space at the summit of the universe (J).
sīla–conduct.
skandha–aggregate, the empirical individual (J).
smriti–human knowledge gleaned from the *Gita*.
soma–religious [supernatural?] drink of ancient India, the recipe for which has unfortunately been lost.
sraddha–faithful.
śruti–divine or superhuman knowledge given the Indians through the Vedas.
śūnyatā–the absolute, unity, in Mahāyāna Buddhism.
sura–forbidden drink.
svabhāva–material elements with an immanent force, allied to hylozoism.
svabhāvavāda–a kind of early Indian naturalistic outlook.
svaprakāśa–self-luminous knowledge (J).
svarga–celestial world of enjoyment where all desires are fulfilled.
svataḥ-prāmāṇya–self-evident knowledge (V).
syādasti–positive determination of something (J).
syādvāda–doctrine of relative judgment (J) (most like Bertrand Russell's theory of perspectives in the West).

syānnāsti–negative determination of an object, e.g., it is not a stone, a book, etc.
syāt–in some respect; see doctrine of relative judgment (J).

tamas–inertia which counteracts the tendency of *rajas* to work; material stuff (S).
tanmātra–subtle matter (S).
tejo–atom possessing heat and light.
tejo bhūta–atom of color potential (S).
triratna–the three jewels of Jainism: faith in Jina, knowledge of Jina's doctrine, and perfect conduct (J).
turphari–magic formula of ancient Brahman ritual.

upekkhā–absolute indifference of feeling.
ūrdha loka–highest part of the upper realm, inhabited by celestial beings (J).

vāk–word.
varna–caste, originally color.
vāyu–atom possessing impact or pressure (S).
vāyu bhūta–the energy of motion (atomic) (S).
vedanā–feeling; pleasant, unpleasant, or neutral.
vid–to know.
vignanātma = *vijñanātma*–person in Upanishads.
vijñāna–consciousness, cognition, awareness.
vikala–imperfect celestial perception (J).
viśeṣa–particularity (V).
viśeṣa-lakṣana–particular characterizations (V).
viśeṣana = *viçeṣana*–attributes of an object of knowledge (V).
viśeṣya = *viçeṣya*–an object of knowledge in a judgment (V).
vitaṇdās–synonym for sophist or materialist.
vṛtti–the function of a thing which makes it precisely what it is (like Aristotle's principle of twoness) (S).
vyaktāvyakta–unfolding of the implicit (S).

yati–ascetic.
yoga–contemplation; methods of achieving release through concentration, contemplation.

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